FCC TEST REPORT

FCC ID: 2AZFE-AAOFTO

On Behalf of

Shenzhen Shadow Crown Technology Co., Ltd.

Projector

Model No.: YG431, YG221, YG231, YG251, YG261, YG271, YG331, YG351, YG361, YG381, YG461, YG471, YG521, YG620, YG651, YG661, YG671, YG681

Prepared for	:	Shenzhen Shadow Crown Technology Co., Ltd.
Address	:	A9 East 5th Floor, Industrial Building, Longwang Miao, Fuyong District , Shenzhen, Guangdong, China.

Prepared By	:	Shenzhen Alpha Product Testing Co., Ltd.
Address	:	Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

Report Number	:	A2103194-C01-R03
Date of Receipt	:	March 24, 2021
Date of Test	:	March 24, 2021- April 9, 2021
Date of Report	:	April 19, 2021
Version Number	:	V0

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TEST REPORT DECLARATION

Applicant	:	Shenzhen Shadow Crown Technology Co., Ltd.
Address	:	A9 East 5th Floor, Industrial Building, Longwang Miao, Fuyong District , Shenzhen, Guangdong, China.
Manufacturer	:	Shenzhen Shadow Crown Technology Co., Ltd.
Address	:	A9 East 5th Floor, Industrial Building, Longwang Miao, Fuyong District , Shenzhen, Guangdong, China.
EUT Description	:	Projector
	(A) Model No.	: YG431, YG221, YG231, YG251, YG261, YG271, YG331, YG351, YG361, YG381, YG461, YG471, YG521, YG620, YG651, YG661, YG671, YG681
	(B) Trademark	: N/A

Measurement Standard Used:

FCC CFR Title 47 Part 15 Subpart E Section 15.407

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits both conducted and radiated emissions. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

After the test, our opinion is that EUT compliance with the requirement of the above standards.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Tested by (name + signature).....:	Lucas Pang Project Engineer	Lucas Pang
Approved by (name + signature)…....:	Simple Guan Project Manager	
Date of issue…… ……..:	April 19, 2021	

Revision History

Revision	Issue Date	Revisions	Revised By
V0	April 19, 2021	Initial released Issue	Lucas Pang

1 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	PASS
AC Power Line Conducted Emission	15.207	PASS
Peak Transmit Power	15.407(a)(1), 15.407 (a)(3)	PASS
Power Spectral Density	15.407(a)(1) , 15.407 (a)(3)	PASS
Emission Bandwidth and 99% Occupied Bandwidth	15.407(b)(6), 15.205/15.209	PASS
Radiated Emission	15.205/15.209	PASS
Band Edge	15.205	PASS
Frequency Stability	15.407(f)	PASS

Remark: 1.Pass: The EUT complies with the essential requirements in the standard.

2. N/A is an abbreviation for Not Applicable.

3. F is an abbreviation for Fail.

2 General Information

2.1 General Description of EUT

Description of Device (EUT)

Description	:	Projector
Trademark	:	N/A
Model Number	:	YG431, YG221, YG231, YG251, YG261, YG271, YG331, YG351, YG361, YG381, YG461, YG471, YG521, YG620, YG651, YG661, YG671, YG681
DIFF.	:	The difference between the models is that the board and key components of each product are the same. Only the named will be a little different, so test model is: YG431.
Test Voltage	:	AC 120V/60Hz
Operation Frequency	:	802.11a/ 802.11ac20/ 802.11n(HT20): 5180-5240MHz 802.11ac40/ 802.11n(HT40): 5190-5230MHz 802.11ac80: 5210MHz
Channel separation	:	20MHz for 802.11a/ 802.11ac20/ 802.11n(HT20) 40MHz for 802.11ac40/ 802.11n(HT40) 80MHz for 802.11ac80
Modulation technology:	:	IEEE 802.11n: OFDM (64QAM, 16QAM,QPSK,BPSK) IEEE 802.11a: OFDM (64QAM, 16QAM,QPSK,BPSK) IEEE 802.11ac: OFDM (64QAM, 16QAM,QPSK,BPSK)
Antenna Type	:	Integrated antenna, Maximum Gain is 4.96dBi
Software version	:	V1.0
Hardware version	:	YT-23-MB-V2.3

2.2 Test mode

Keep the EUT in transmitting with modulation.

EUT was test with 100% duty cycle at its maximum power control level.

Bandwidth Mode	20MHz	40MHz	80MHz
IEEE 802.11a	☑	☐	☐
IEEE 802.11n	☑	☑	☐
IEEE 802.11ac	☑	☑	☑

Remark: During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.

2.3 Test Facility

Shenzhen Alpha Product Testing Co., Ltd
Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

June 21, 2018 File on Federal Communication Commission
Registration Number: 293961

July 15, 2019 Certificated by IC
Registration Number: CN0085

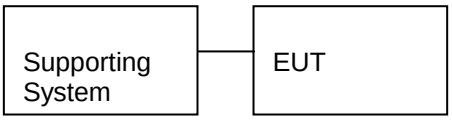
2.4 Accessories of Device (EUT)

Accessories1 : /
Manufacturer : /
Model : /
Ratings : /

2.5 Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification or DOC
/	/	/	/	/	/

2.6 Block Diagram of connection between EUT and simulators



2.7 Test Conditions

Items	Required	Actual
Temperature range:	15-35℃	24℃
Humidity range:	25-75%	56%
Pressure range:	86-106kPa	98kPa

2.8 Measurement Uncertainty

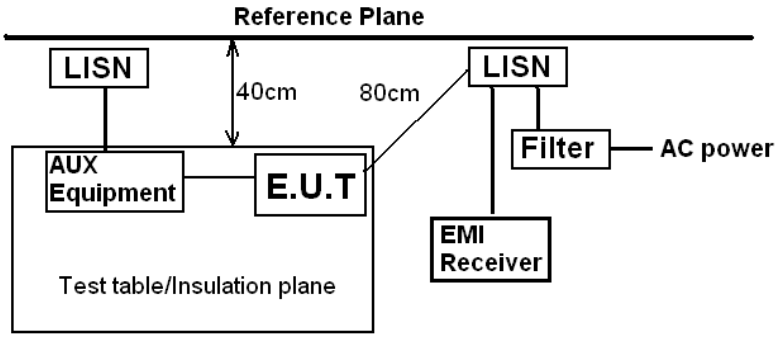
95% confidence levels, k=2)	
Item	Uncertainty
Uncertainty for Power point Conducted Emissions Test	2.74dB
Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)	2.13 dB(Polarize: V)
	2.57dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.77dB(Polarize: V)
	3.80dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	4.16dB(Polarize: H)
	4.13dB(Polarize: V)
Uncertainty for radio frequency	5.4×10-8
Uncertainty for conducted RF Power	0.37dB
Uncertainty for temperature	0.2℃
Uncertainty for humidity	1%
Uncertainty for DC and low frequency voltages	0.06%

3 Test Instruments list

Equipment	Manufacture	Model No.	Serial No.	Last cal.	Cal Interval
9*6*6 anechoic chamber	CHENYU	9*6*6	N/A	2020.09.02	1Year
Spectrum analyzer	ROHDE&SCHWARZ	FSU	1166.1660.26	2020.09.02	1Year
Spectrum analyzer	Agilent	N9020A	MY499100060	2020.09.02	1Year
Receiver	ROHDE&SCHWARZ	ESR	1316.3003K03-102082-Wa	2020.09.02	1Year
Receiver	R&S	ESCI	101165	2020.09.02	1Year
Bilog Antenna	Schwarzbeck	VULB 9168	VULB9168-438	2019.09.07	2Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D(1201)	2020.04.12	2Year
Loop Antenna	SCHWARZBECK	FMZB 1519B	00059	2019.09.07	2Year
Cable	Resenberger	N/A	No.1	2020.09.02	1Year
Cable	SCHWARZBECK	N/A	No.2	2020.09.02	1Year
Cable	SCHWARZBECK	N/A	No.3	2020.09.02	1Year
Pre-amplifier	HP	HP8347A	2834A00455	2020.09.02	1Year
Pre-amplifier	Agilent	8449B	3008A02664	2020.09.02	1Year
Temperature controller	Terchy	MHQ	120	2020.09.02	1Year
L.I.S.N.#1	Schwarzbeck	NSLK8126	8126-466	2020.09.02	1Year
L.I.S.N.#2	ROHDE&SCHWARZ	ENV216	101043	2020.09.02	1 Year
20db Attenuator	ICPROBING	IATS1	82347	2020.09.02	1 Year
Power meter	Agilent	E4419B	GB40202122	2020.09.02	1 Year

4 Test results and Measurement Data

4.1 Conducted Emissions

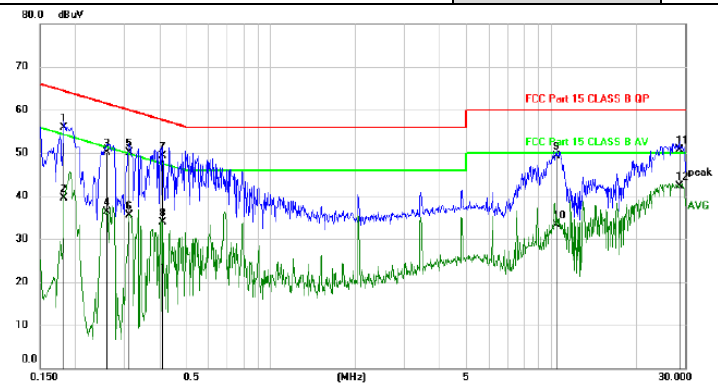
<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.207</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10:2013</td></tr>
<tr><td>Test Frequency Range:</td><td>150KHz to 30MHz</td></tr>
<tr><td>Class / Severity:</td><td>Class B</td></tr>
<tr><td>Receiver setup:</td><td>RBW=9KHz, VBW=30KHz</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><td rowspan="2">Frequency range (MHz)</td><td colspan="2">Limit (dBuV)</td></tr>
<tr><td>Quasi-peak</td><td>Average</td></tr>
<tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr>
<tr><td>0.5-5</td><td>56</td><td>46</td></tr>
<tr><td>5-30</td><td>60</td><td>50</td></tr>
</table>
* Decreases with the logarithm of the frequency.
</td></tr>
<tr><td>Test procedure</td><td>The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.</td></tr>
<tr><td>Test setup:</td><td>


Remark:
E.U.T: Equipment Under Test
LISN: Line Impedence Stabilization Network
Test table height=0.8m
</td></tr>
<tr><td>Test results:</td><td>Pass.</td></tr>
</table>

Measurement Data

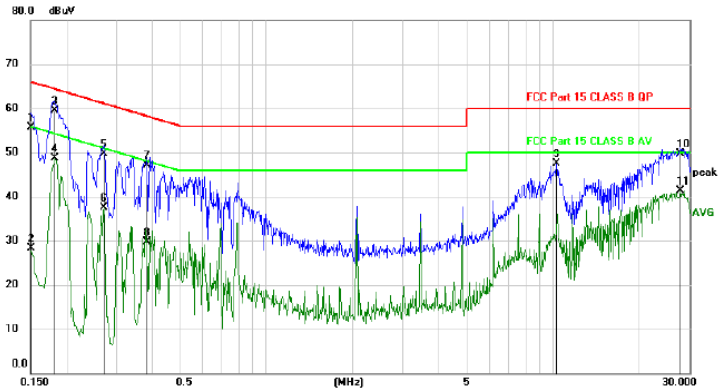
An initial pre-scan was performed on the line and neutral lines with peak detector. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

EUT Description	Projector	Model No.	YG431
Temperature	24℃	Humidity	56%
Pol	Line	Test date	2021/3/29
Test Voltage	AC 120V/ 60Hz	Test mode	802.11a (5240MHz)



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1829	45.92	9.93	55.85	64.35	-8.50	QP	
2		0.1829	29.48	9.93	39.41	54.35	-14.94	AVG	
3		0.2589	40.23	9.96	50.19	61.47	-11.28	QP	
4		0.2589	26.35	9.96	36.31	51.47	-15.16	AVG	
5		0.3119	40.24	9.93	50.17	59.92	-9.75	QP	
6		0.3119	25.54	9.93	35.47	49.92	-14.45	AVG	
7		0.4107	39.41	9.94	49.35	57.63	-8.28	QP	
8		0.4107	23.89	9.94	33.83	47.63	-13.80	AVG	
9		10.4640	39.06	10.22	49.28	60.00	-10.72	QP	
10		10.4640	23.10	10.22	33.32	50.00	-16.68	AVG	
11		28.6646	40.06	10.61	50.67	60.00	-9.33	QP	
12	*	28.6646	31.76	10.61	42.37	50.00	-7.63	AVG	

Pol	Neutral



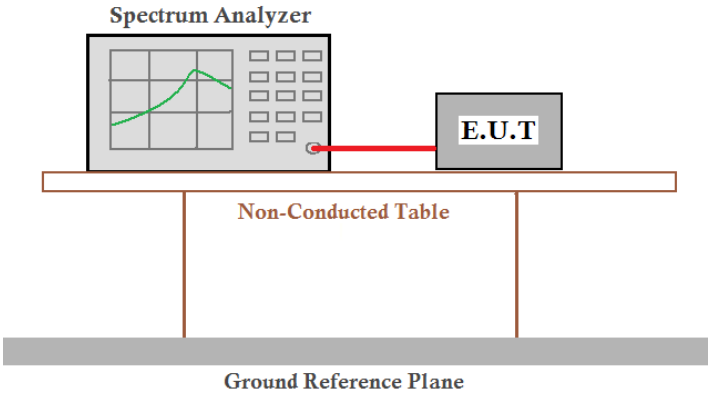
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	45.67	9.94	55.61	66.00	-10.39	QP	
2		0.1500	18.29	9.94	28.23	56.00	-27.77	AVG	
3	*	0.1829	49.55	9.93	59.48	64.35	-4.87	QP	
4		0.1829	38.86	9.93	48.79	54.35	-5.56	AVG	
5		0.2701	39.70	9.95	49.65	61.11	-11.46	QP	
6		0.2701	27.54	9.95	37.49	51.11	-13.62	AVG	
7		0.3840	37.09	9.94	47.03	58.19	-11.16	QP	
8		0.3840	19.86	9.94	29.80	48.19	-18.39	AVG	
9		10.3407	37.32	10.22	47.54	60.00	-12.46	peak	
10		27.9024	39.18	10.57	49.75	60.00	-10.25	QP	
11		27.9024	30.64	10.57	41.21	50.00	-8.79	AVG	

*:Maximum data x:Over limit !:over margin

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

Remark: All modes have been tested, and only worst data was listed in this report.

4.2 Emission Bandwidth and 99% Occupied Bandwidth

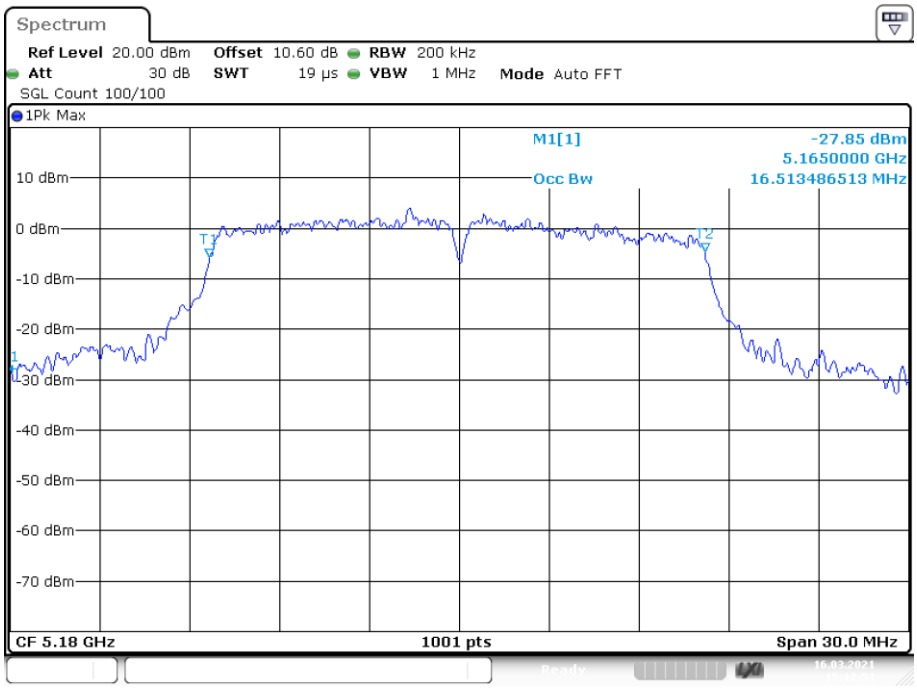
Test Requirement:	FCC Part15 E Section 15.407
Test Method:	KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Limit:	Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 kHz for the band 5.725−5.85 GHz.
Test setup:	
Test procedure:	According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Test results:	Pass

Measurement Data:

U-NII-1							
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	802.11a	5180	Ant 1	16.513	20.19	0.5	Pass
NVNT	802.11a	5200	Ant 1	16.663	21.93	0.5	Pass
NVNT	802.11a	5240	Ant 1	16.543	20.58	0.5	Pass
NVNT	802.11ac20	5180	Ant 1	17.682	22.98	0.5	Pass
NVNT	802.11ac20	5200	Ant 1	17.682	25.41	0.5	Pass
NVNT	802.11ac20	5240	Ant 1	17.682	25.65	0.5	Pass
NVNT	802.11ac40	5190	Ant 1	36.264	58.38	0.5	Pass
NVNT	802.11ac40	5230	Ant 1	36.144	42.48	0.5	Pass
NVNT	802.11ac80	5210	Ant 1	75.285	120	0.5	Pass
NVNT	802.11n(HT20)	5180	Ant 1	17.652	23.13	0.5	Pass
NVNT	802.11n(HT20)	5200	Ant 1	17.712	23.07	0.5	Pass
NVNT	802.11n(HT20)	5240	Ant 1	17.682	25.89	0.5	Pass
NVNT	802.11n(HT40)	5190	Ant 1	36.264	59.16	0.5	Pass
NVNT	802.11n(HT40)	5230	Ant 1	36.084	56.22	0.5	Pass

Test plots as followed:

OBW NVNT 802.11a 5180MHz Ant1



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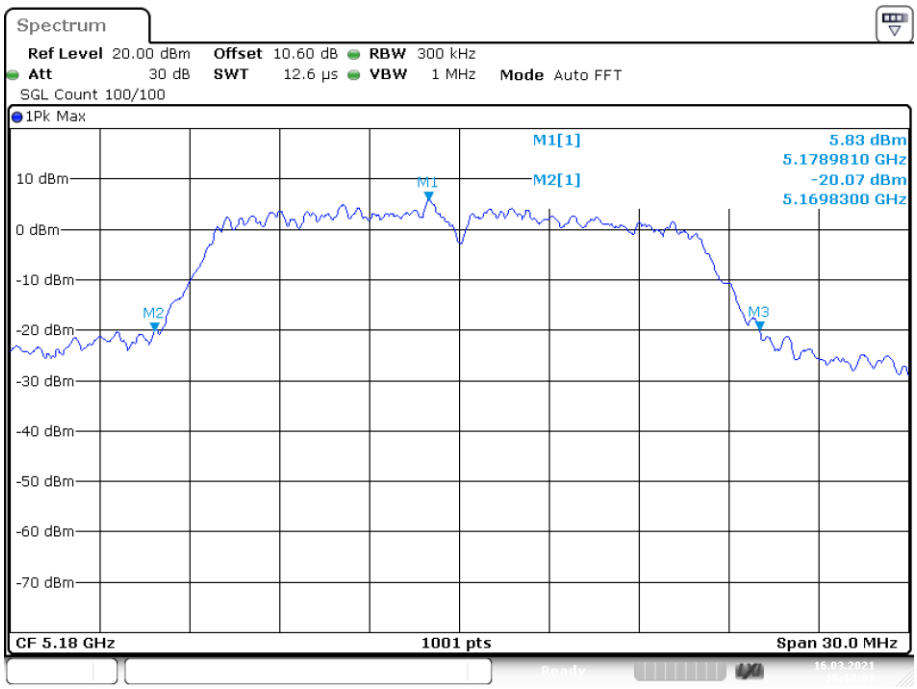
-26 dB BW NVNT 802.11a 5180MHz Ant1



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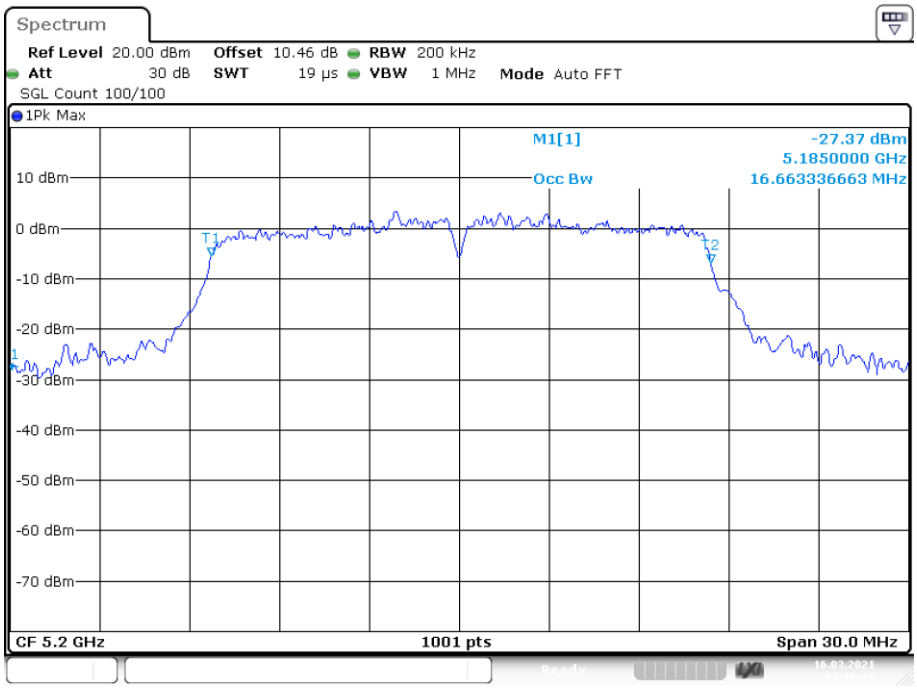
OBW NVNT 802.11a 5200MHz Ant1



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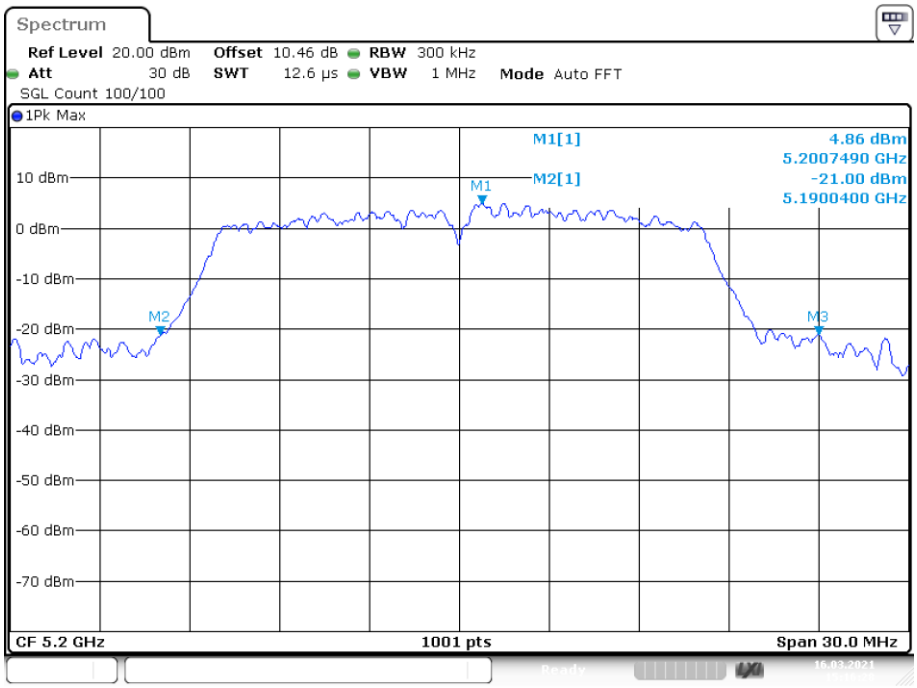
-26 dB BW NVNT 802.11a 5200MHz Ant1



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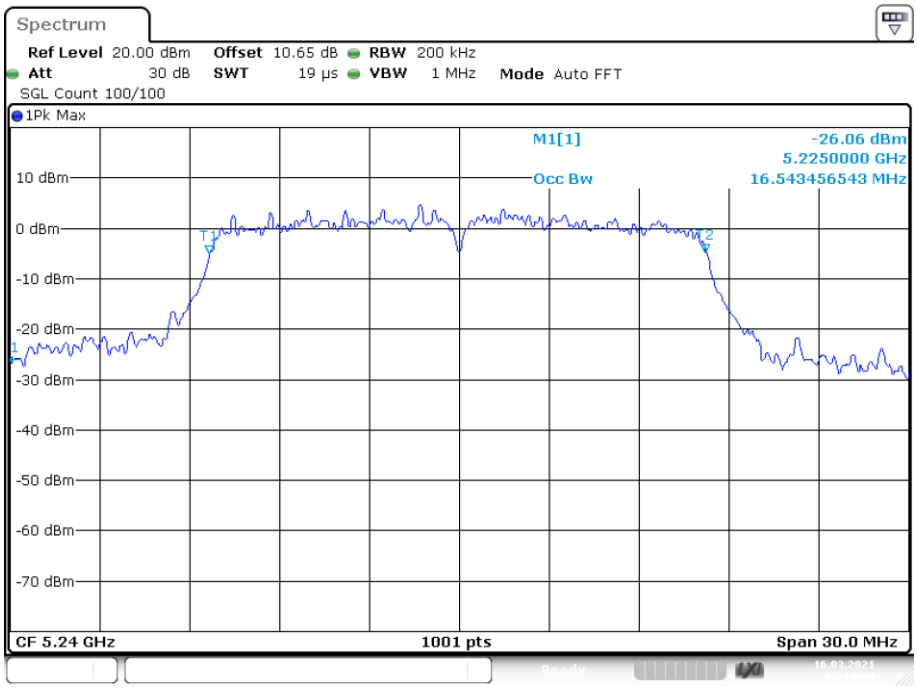

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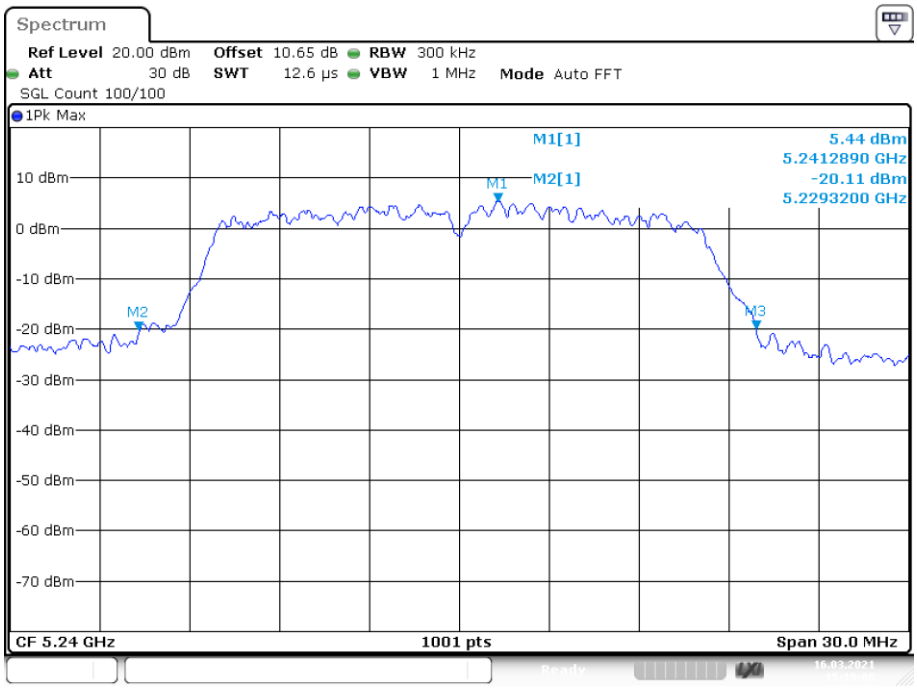
-26 dB BW NVNT 802.11a 5240MHz Ant1



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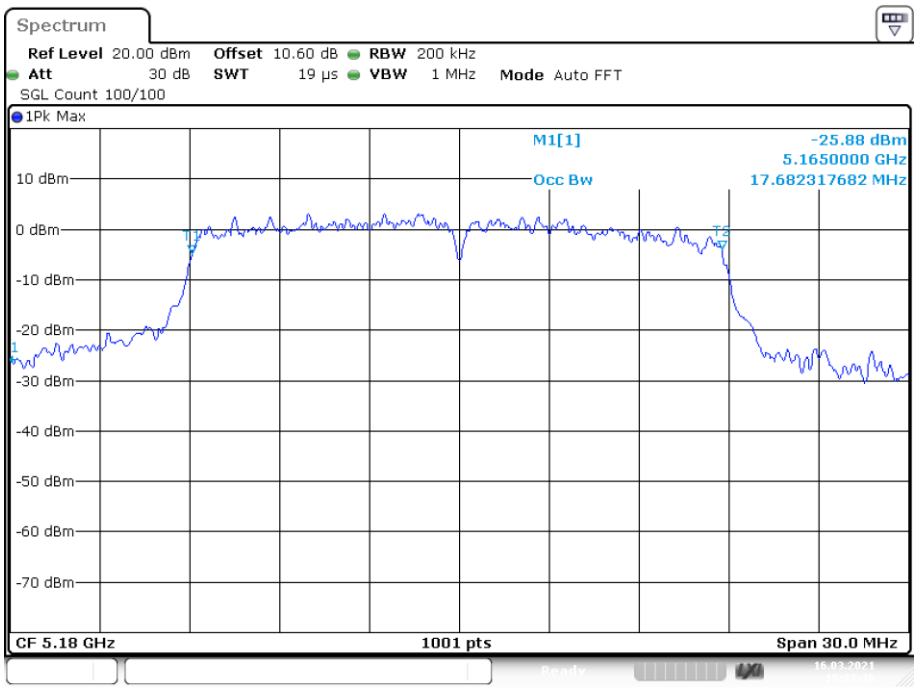
OBW NVNT 802.11ac20 5180MHz Ant1



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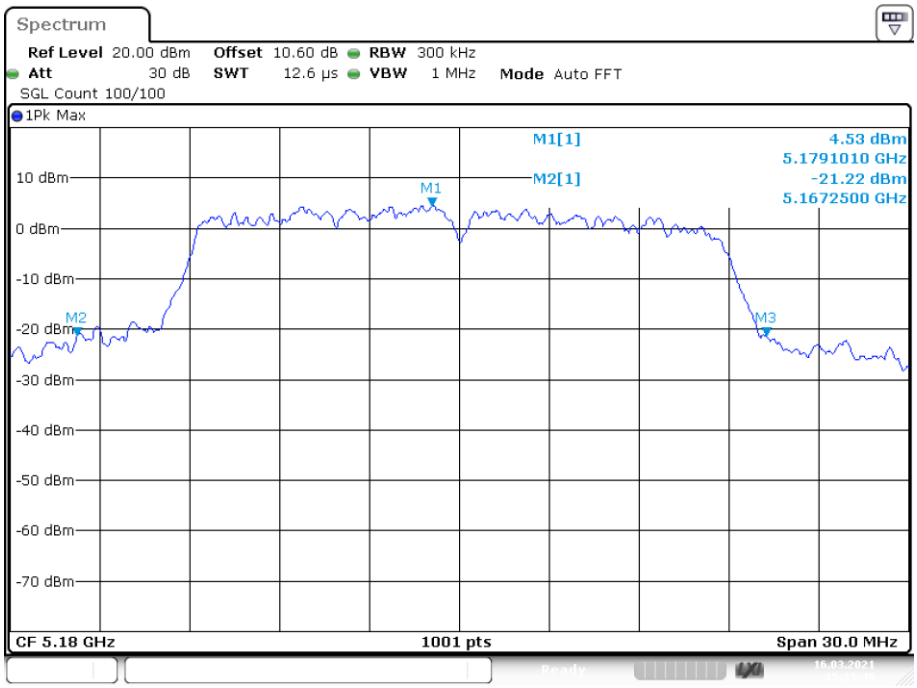
-26 dB BW NVNT 802.11ac20 5180MHz Ant1



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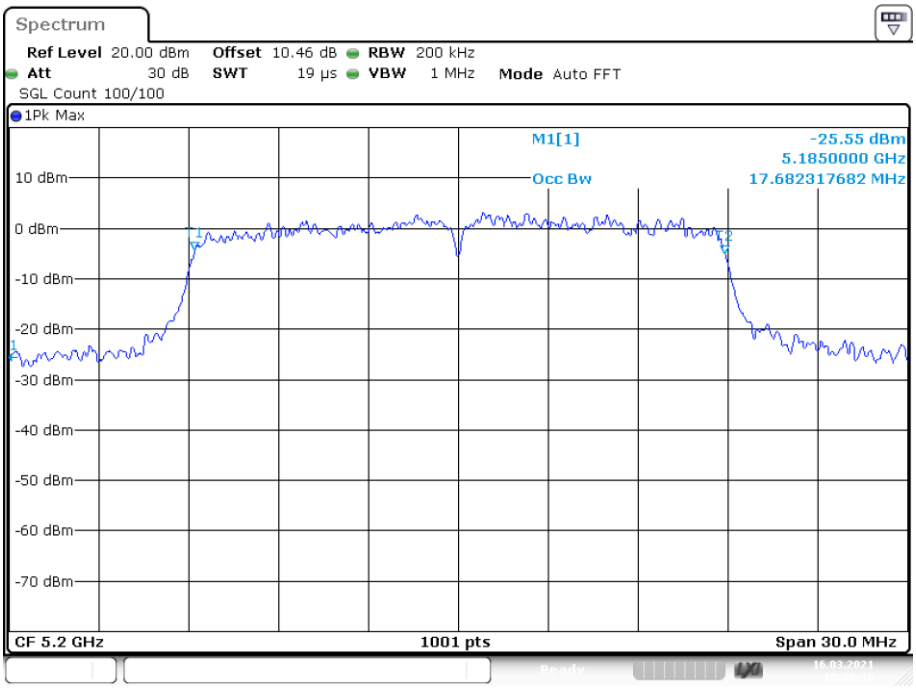
OBW NVNT 802.11ac20 5200MHz Ant1



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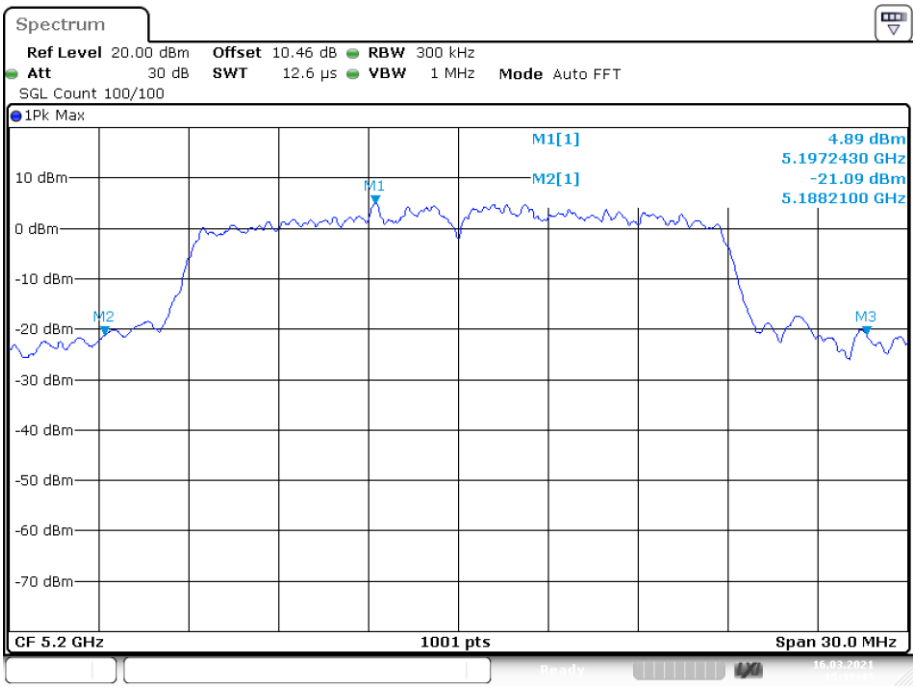
-26 dB BW NVNT 802.11ac20 5200MHz Ant1



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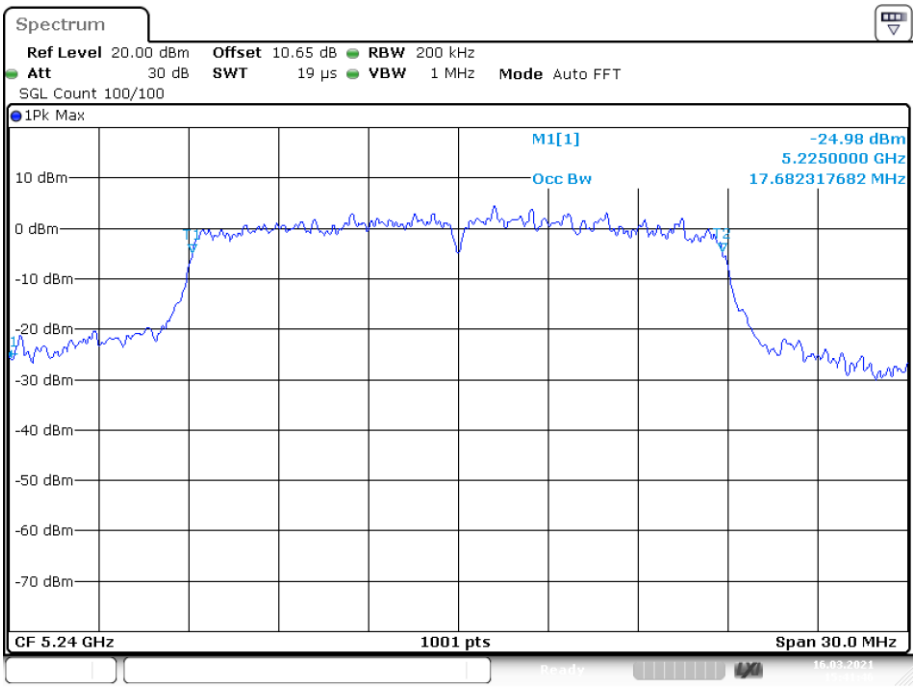
OBW NVNT 802.11ac20 5240MHz Ant1



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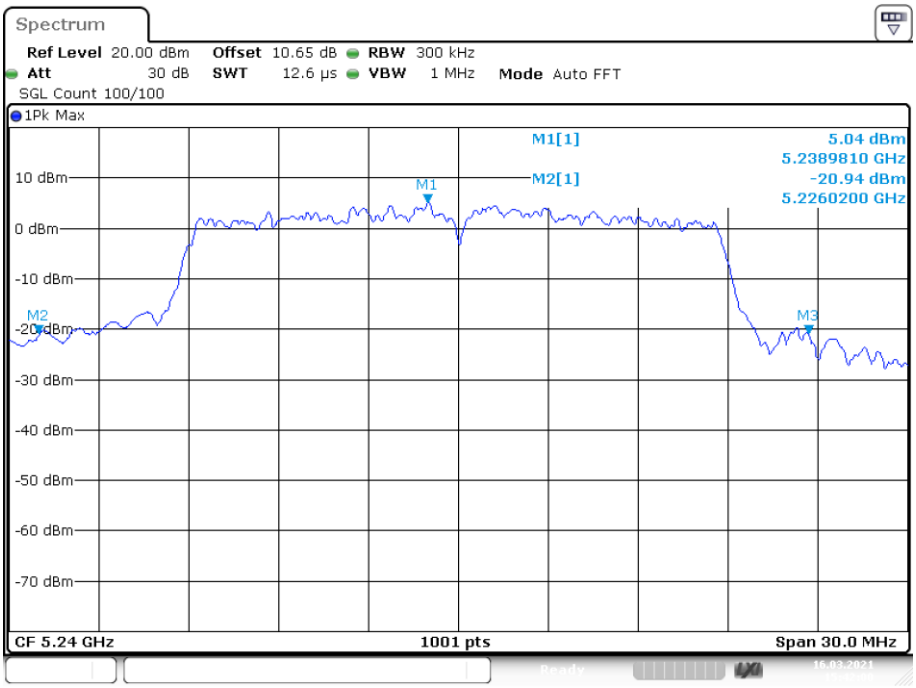
-26 dB BW NVNT 802.11ac20 5240MHz Ant1



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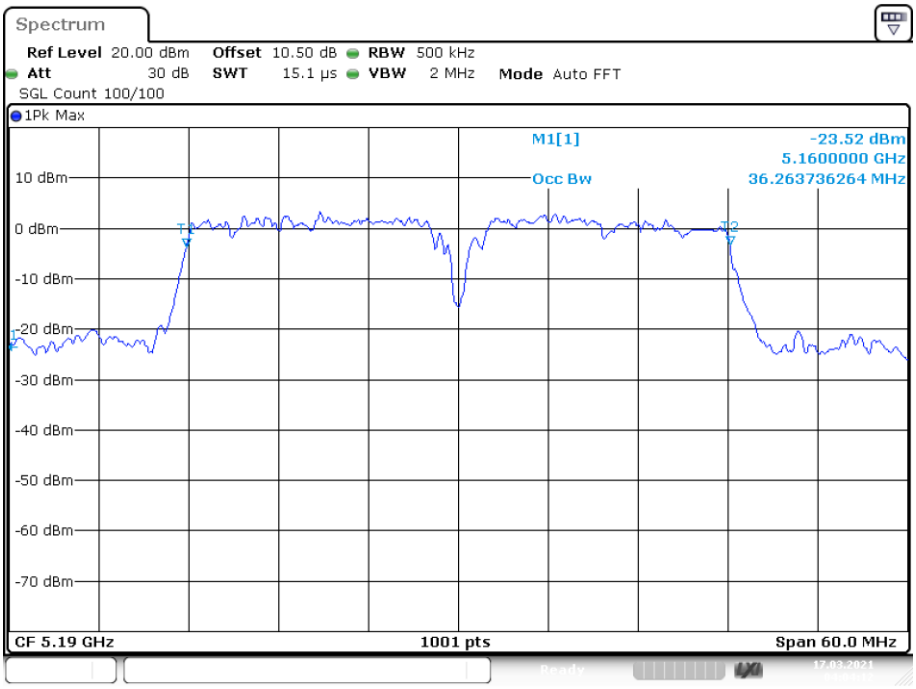
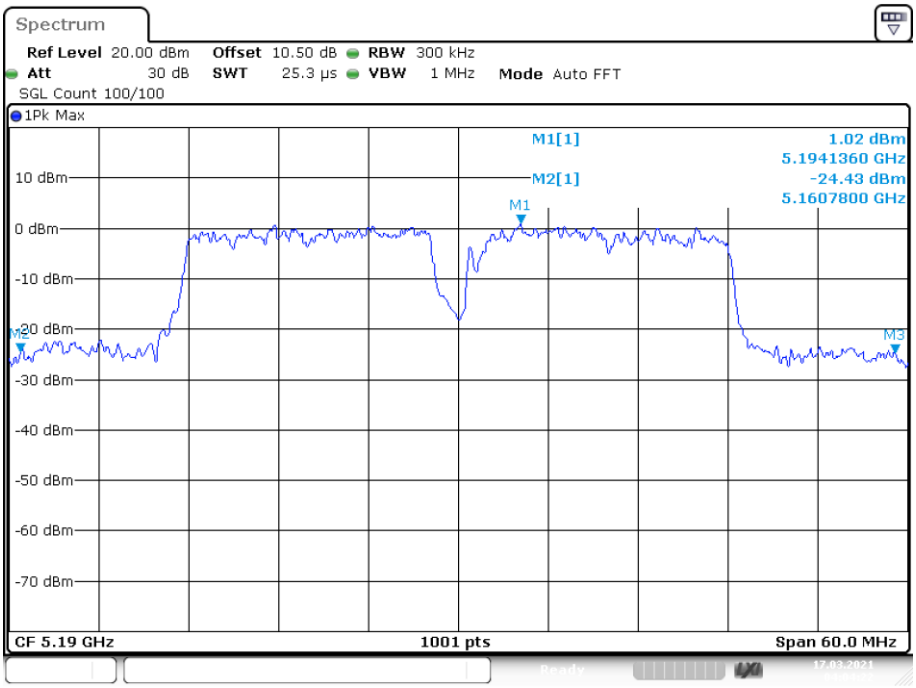
OBW NVNT 802.11ac40 5190MHz Ant1



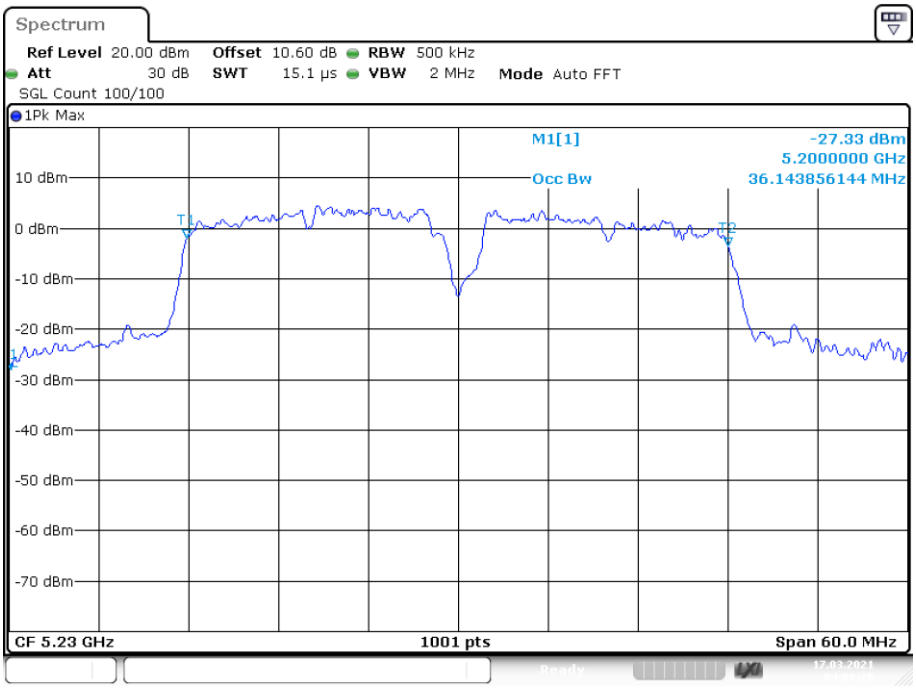
Date: 17.MAR.2021 04:04:12

-26 dB BW NVNT 802.11ac40 5190MHz Ant1



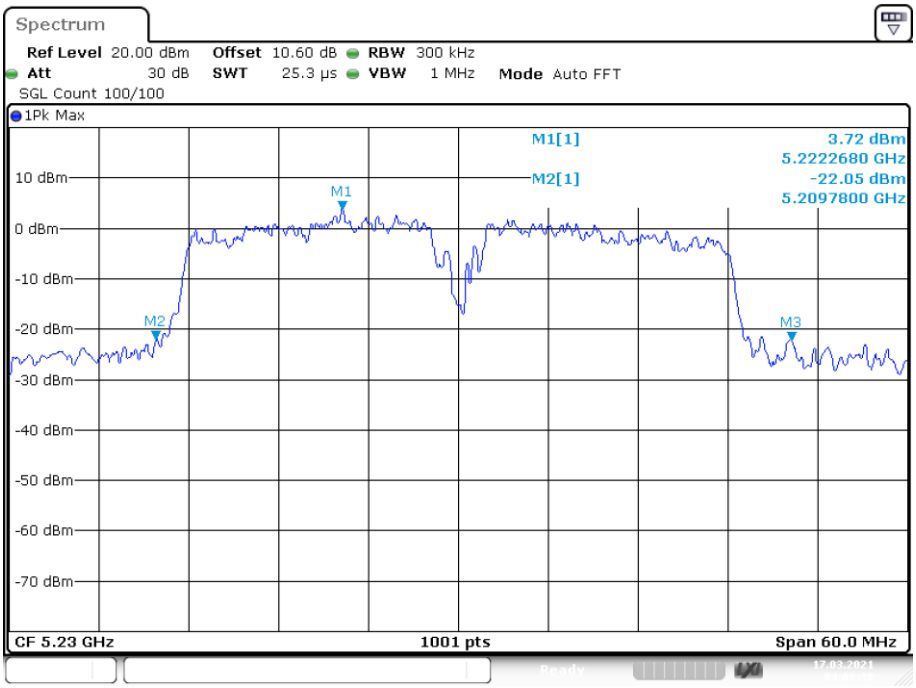
Date: 17.MAR.2021 04:04:22

OBW NVNT 802.11ac40 5230MHz Ant1



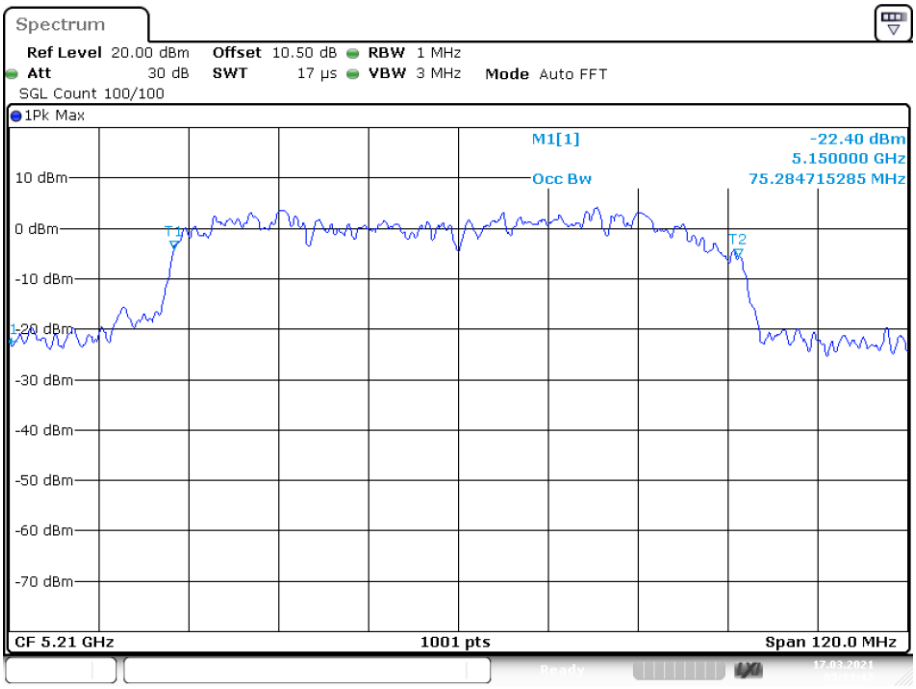
Date: 17.MAR.2021 04:08:25

-26 dB BW NVNT 802.11ac40 5230MHz Ant1



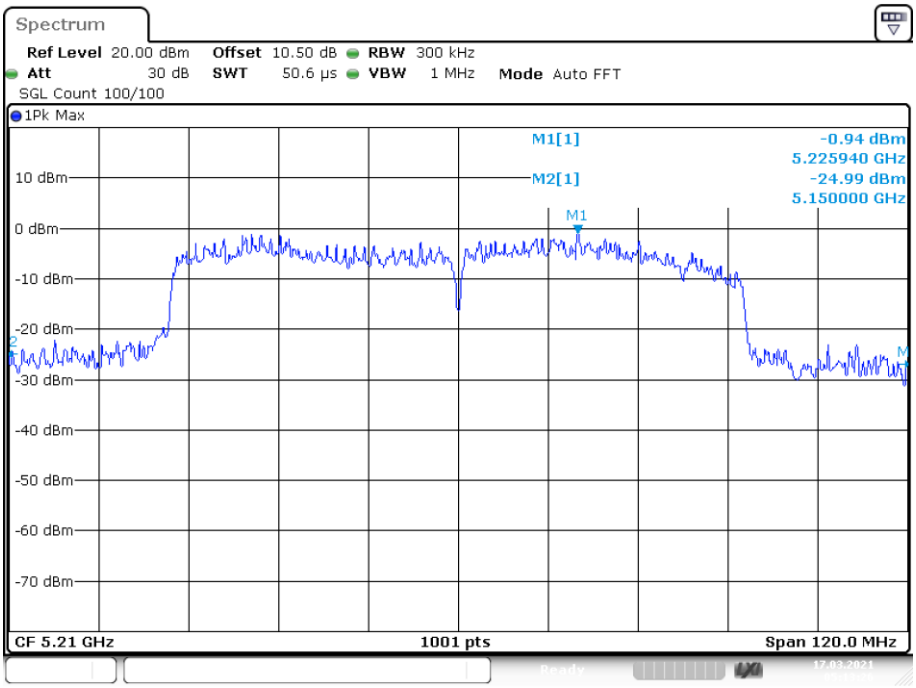
Date: 17.MAR.2021 04:08:37

OBW NVNT 802.11ac80 5210MHz Ant1



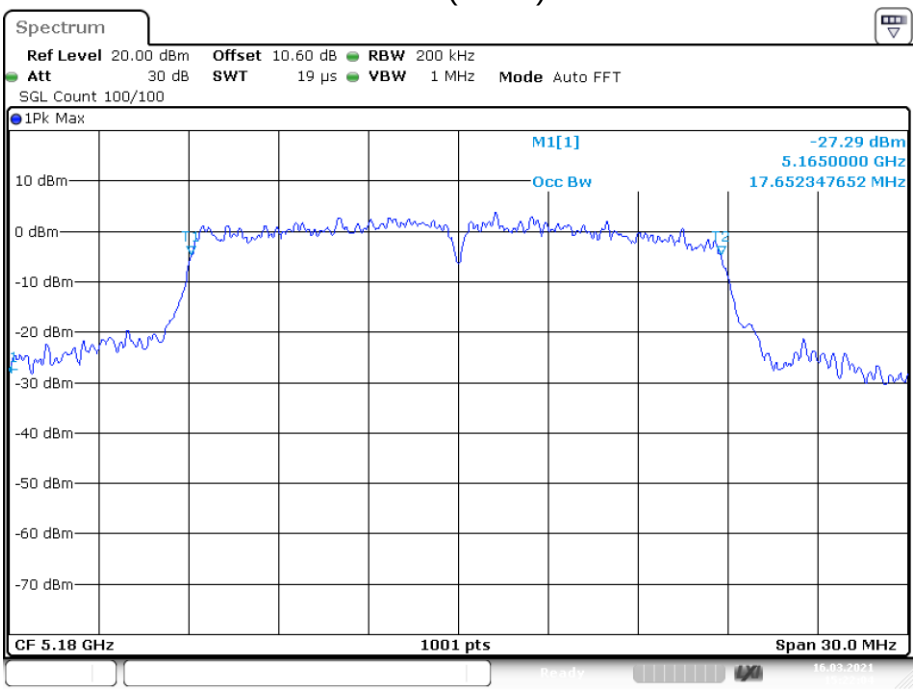
Date: 17.MAR.2021 05:13:12

-26 dB BW NVNT 802.11ac80 5210MHz Ant1



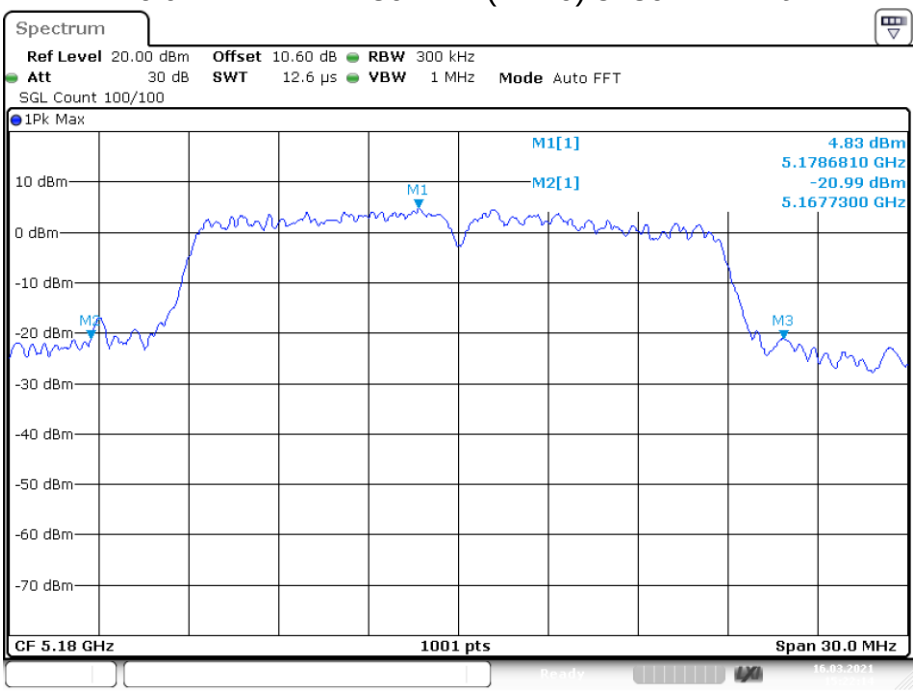
Date: 17.MAR.2021 05:13:26

OBW NVNT 802.11n(HT20) 5180MHz Ant1



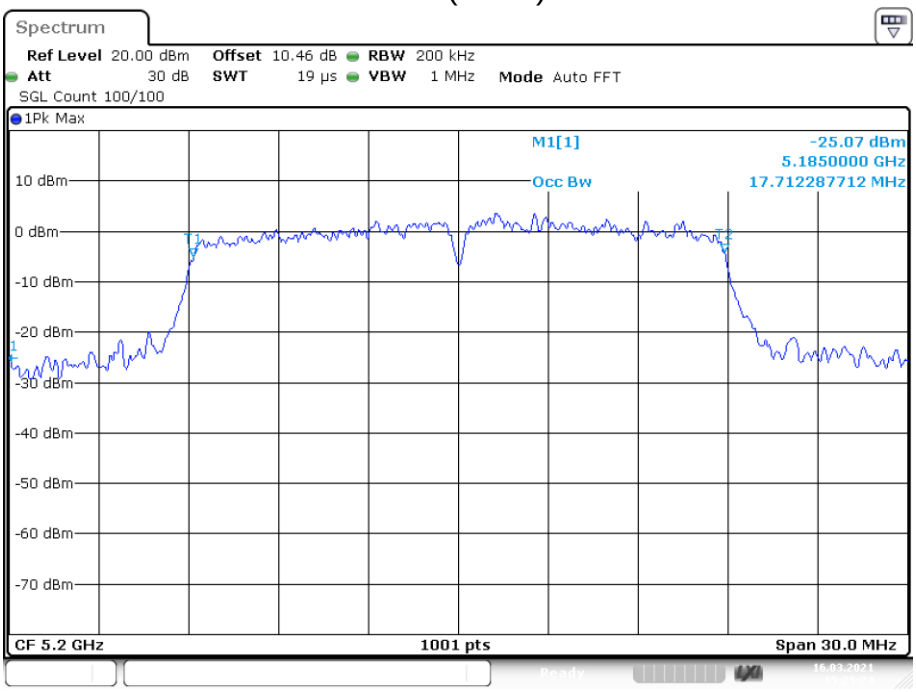
Date: 16.MAR.2021 15:22:04

-26 dB BW NVNT 802.11n(HT20) 5180MHz Ant1



Date: 16.MAR.2021 15:22:14

OBW NVNT 802.11n(HT20) 5200MHz Ant1



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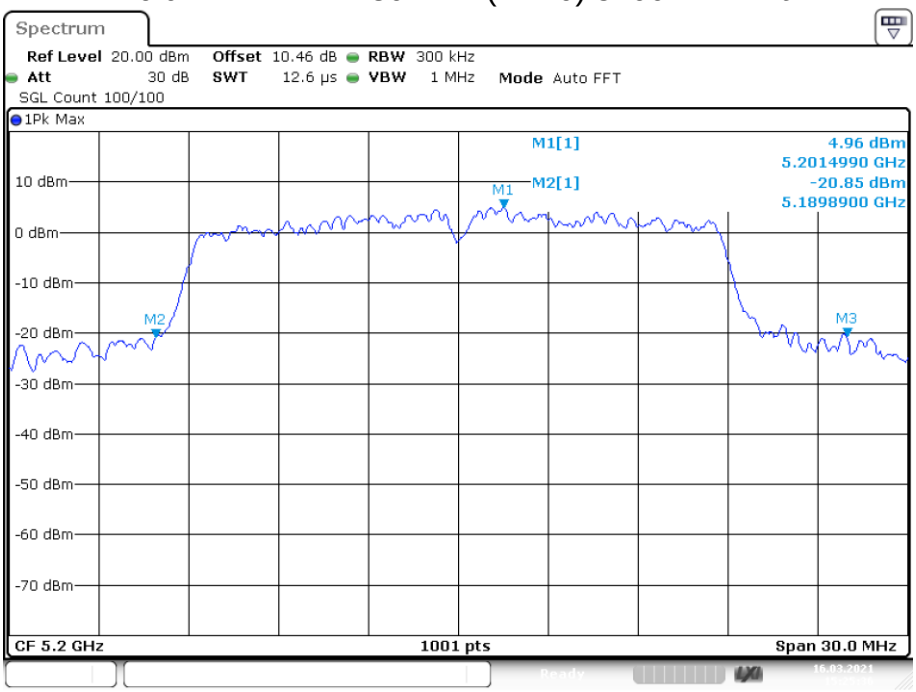
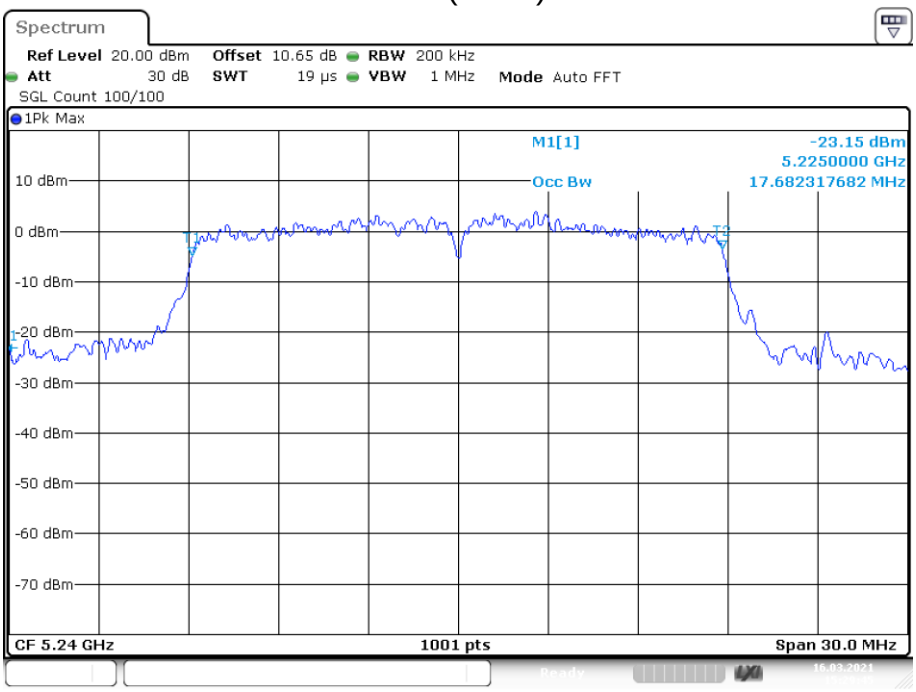
-26 dB BW NVNT 802.11n(HT20) 5200MHz Ant1



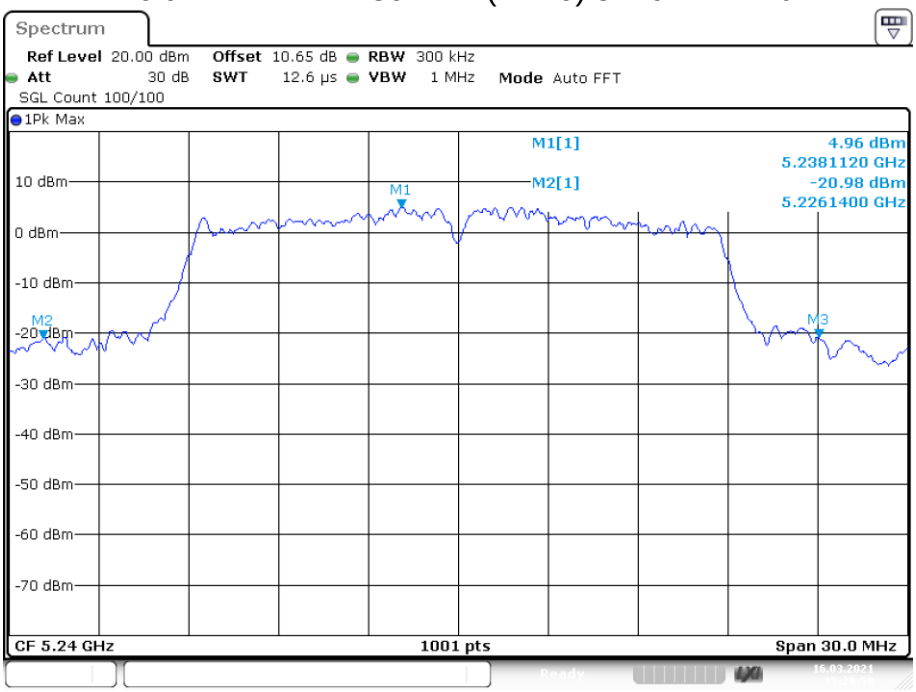
Date: 16.MAR.2021 15:25:36

OBW NVNT 802.11n(HT20) 5240MHz Ant1



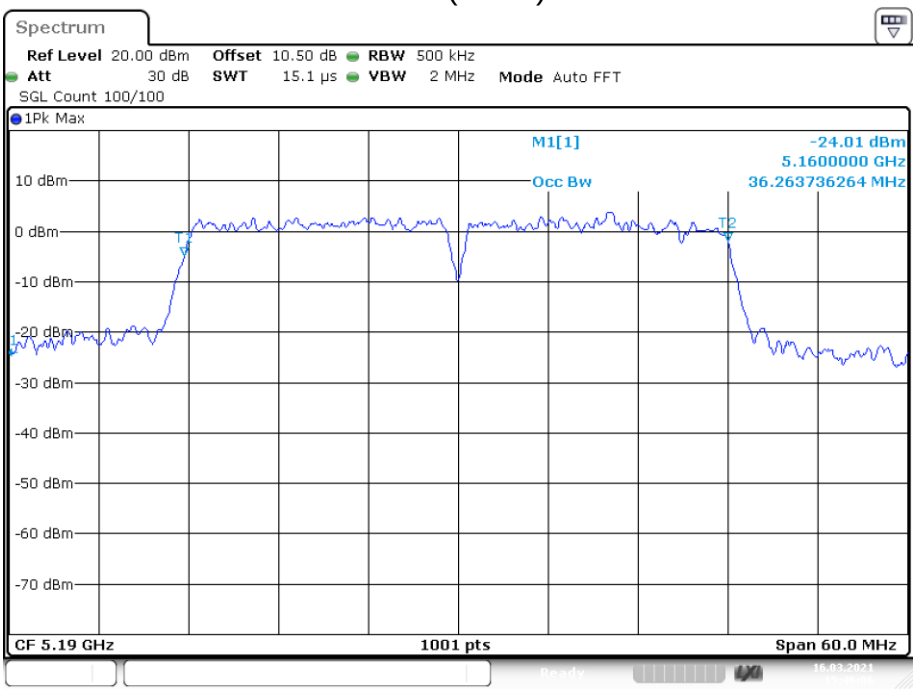
Date: 16.MAR.2021 15:29:45

-26 dB BW NVNT 802.11n(HT20) 5240MHz Ant1



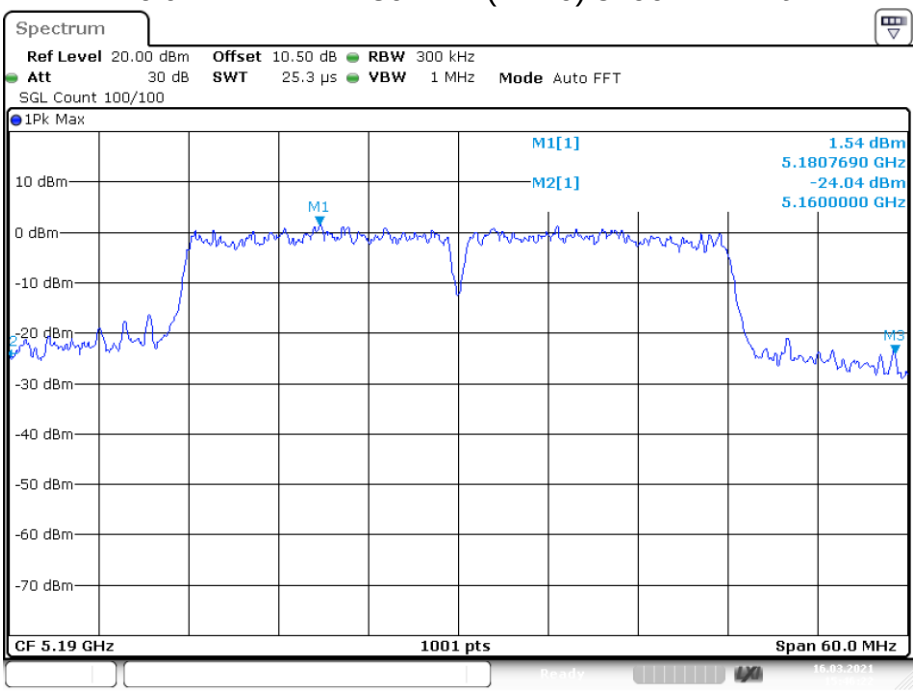
Date: 16.MAR.2021 15:29:57

OBW NVNT 802.11n(HT40) 5190MHz Ant1



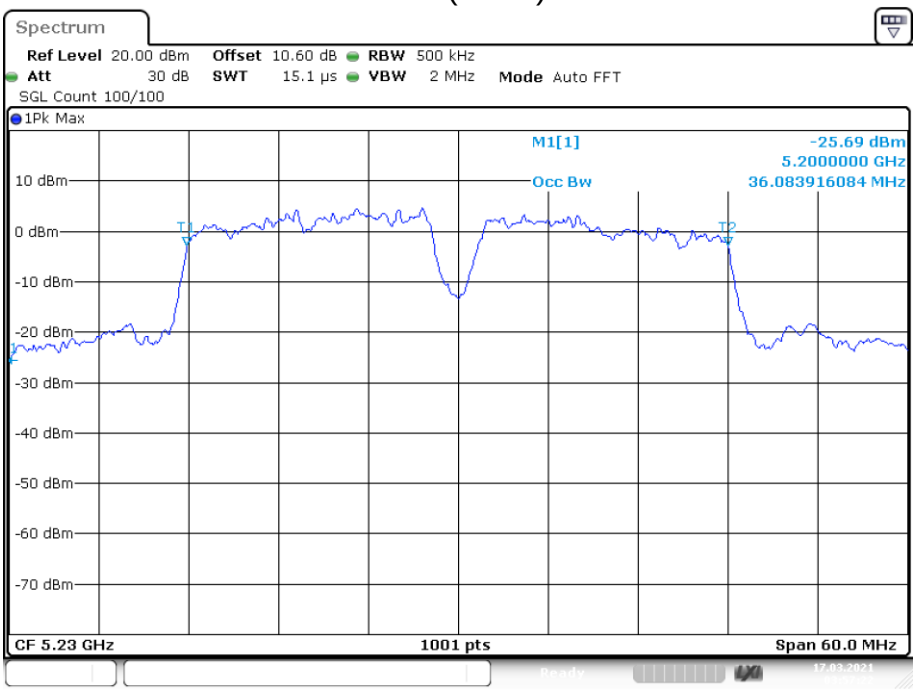
Date: 16.MAR.2021 15:46:05

-26 dB BW NVNT 802.11n(HT40) 5190MHz Ant1



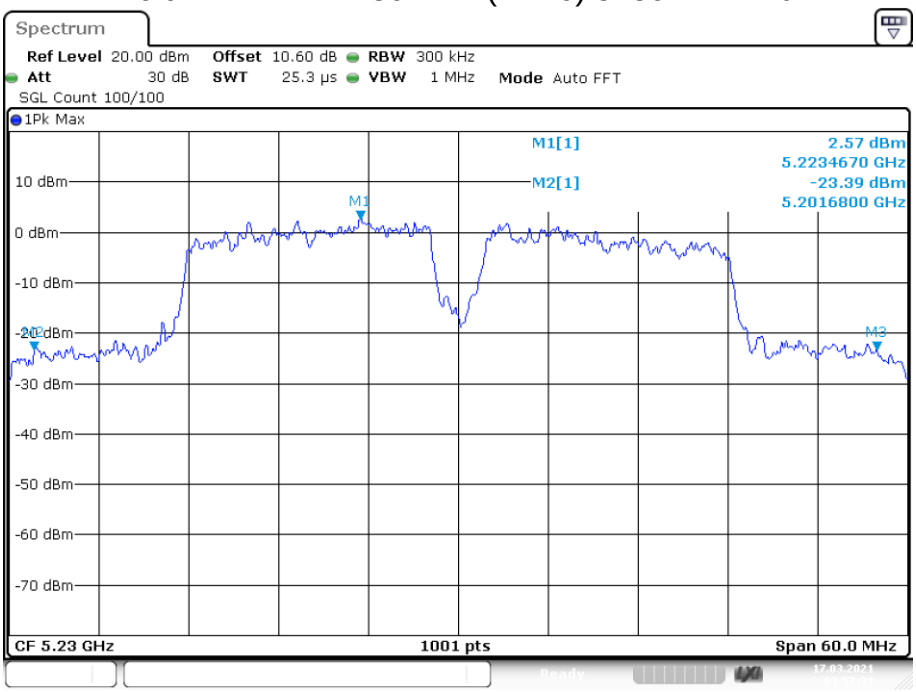
Date: 16.MAR.2021 15:46:21

OBW NVNT 802.11n(HT40) 5230MHz Ant1



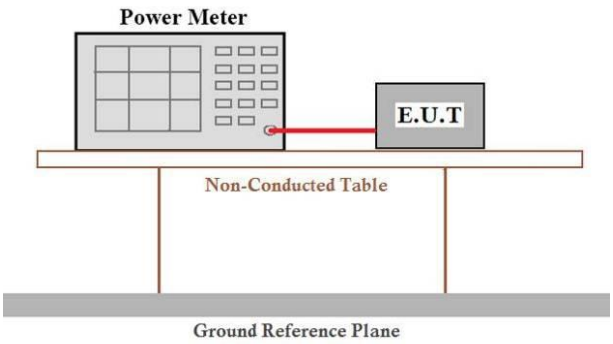
Date: 17.MAR.2021 03:57:22

-26 dB BW NVNT 802.11n(HT40) 5230MHz Ant1



Date: 17.MAR.2021 03:57:31

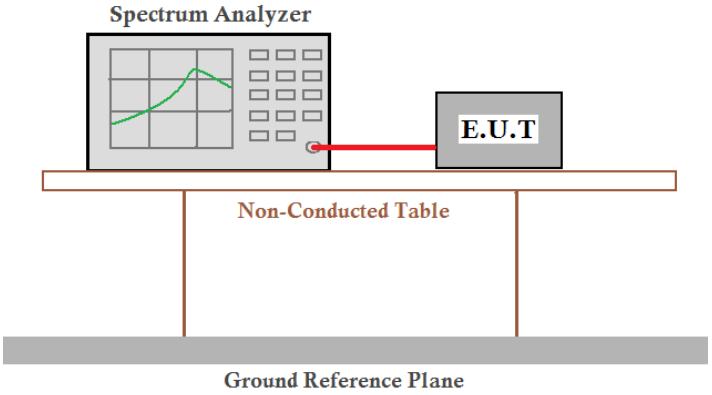
4.3 Peak Transmit Power

Test Requirement:	FCC Part15 E Section 15.407
Test Method:	KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Limit:	For the band 5.15-5.25GHz, 5.25-5.35GHz, 5.47-5.725GHz,the maximum conducted output power over the frequency bands of operation shall not exceed 250mW. For the band 5.725-5.85GHz, the maximum conducted output power over the frequency bands of operation shall not exceed 1W.
Test setup:	
Test procedure:	**Measurement using an RF PK power meter** (i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied a) The EUT is configured to transmit continuously or to transmit with a constant duty cycle. b) At all times when the EUT is transmitting, it must be transmitting at its maximum power control level. c) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five. (ii) If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in section B). (iii) Measure the PK power of the transmitter. This measurement is a PK over both the on and off periods of the transmitter. (iv) Adjust the measurement in dBm by adding 10 log(1/x) where x is the duty cycle (e.g., 10log(1/0.25) if the duty cycle is 25 percent).
Test results:	Pass

Measurement Data

U-NII-1						
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	802.11a	5180	Ant 1	5.519	24	Pass
NVNT	802.11a	5200	Ant 1	5.682	24	Pass
NVNT	802.11a	5240	Ant 1	6.056	24	Pass
NVNT	802.11ac20	5180	Ant 1	5.389	24	Pass
NVNT	802.11ac20	5200	Ant 1	5.709	24	Pass
NVNT	802.11ac20	5240	Ant 1	5.937	24	Pass
NVNT	802.11ac40	5190	Ant 1	5.220	24	Pass
NVNT	802.11ac40	5230	Ant 1	5.810	24	Pass
NVNT	802.11ac80	5210	Ant 1	6.694	24	Pass
NVNT	802.11n(HT20)	5180	Ant 1	5.629	24	Pass
NVNT	802.11n(HT20)	5200	Ant 1	5.700	24	Pass
NVNT	802.11n(HT20)	5240	Ant 1	6.168	24	Pass
NVNT	802.11n(HT40)	5190	Ant 1	5.519	24	Pass
NVNT	802.11n(HT40)	5230	Ant 1	5.682	24	Pass

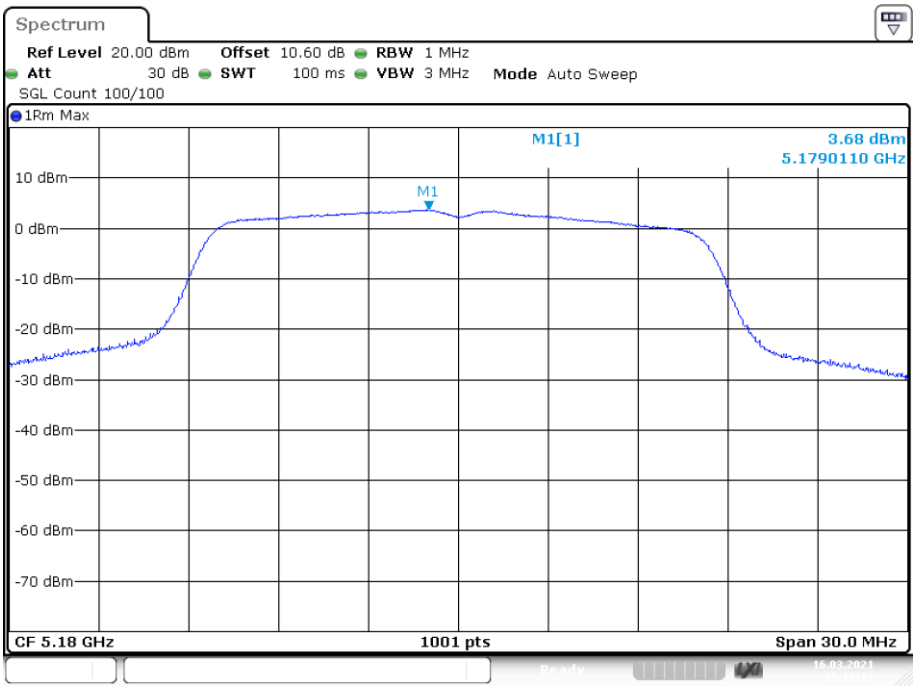
4.4 Power Spectral Density

Test Requirement:	FCC Part15 E Section 15.407
Test Method:	KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Limit:	≤11.00dBm/MHz for 5150MHz-5250MHz, 5250-5350MHz and 5470-5725 MHz ≤30.00dBm/500KHz for 5725MHz-5850MHz
Test setup:	
Test procedure:	1) Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, “Compute power…”. 2) Use the peak search function on the instrument to find the peak of the spectrum. 3) Make the following adjustments to the peak value of the spectrum, if applicable: a) If Method SA-2 or SA-2 Alternative was used, add 10 log(1/x), where x is the duty cycle, to the peak of the spectrum. b) If Method SA-3 Alternative was used and the linear mode was used in step E)2)g)(viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging. 4) The result is the PSD.
Test results:	Pass

Measurement Data

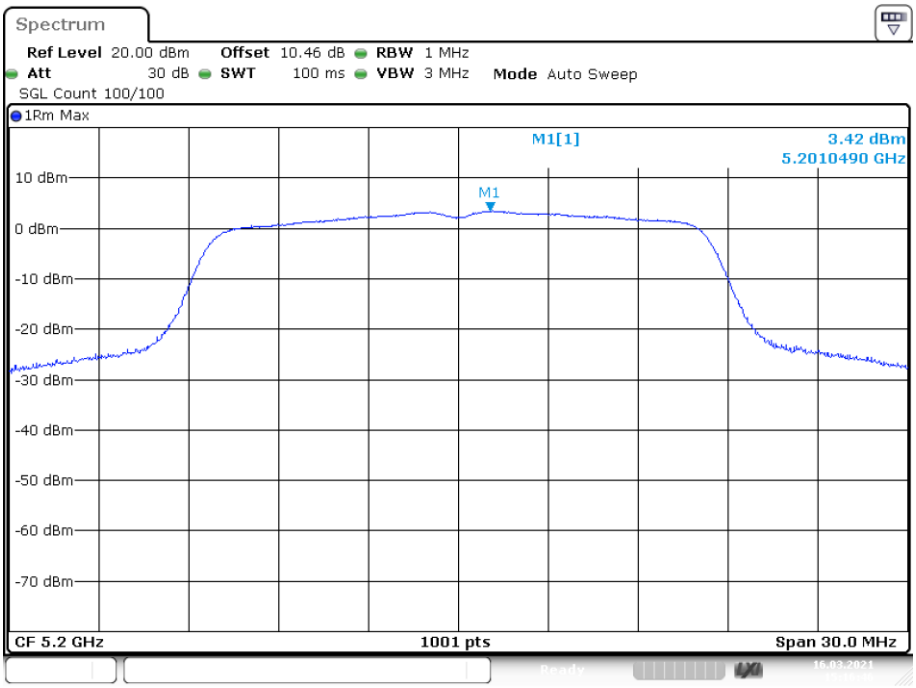
U-NII-1						
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	802.11a	5180	Ant 1	3.684	11	Pass
NVNT	802.11a	5200	Ant 1	3.423	11	Pass
NVNT	802.11a	5240	Ant 1	3.956	11	Pass
NVNT	802.11ac20	5180	Ant 1	3.576	11	Pass
NVNT	802.11ac20	5200	Ant 1	3.637	11	Pass
NVNT	802.11ac20	5240	Ant 1	3.697	11	Pass
NVNT	802.11ac40	5190	Ant 1	-0.385	11	Pass
NVNT	802.11ac40	5230	Ant 1	1.324	11	Pass
NVNT	802.11ac80	5210	Ant 1	-3.494	11	Pass
NVNT	802.11n(HT20)	5180	Ant 1	3.539	11	Pass
NVNT	802.11n(HT20)	5200	Ant 1	3.379	11	Pass
NVNT	802.11n(HT20)	5240	Ant 1	3.955	11	Pass
NVNT	802.11n(HT40)	5190	Ant 1	-0.26	11	Pass
NVNT	802.11n(HT40)	5230	Ant 1	1.061	11	Pass

PSD NVNT a 5180MHz Ant1



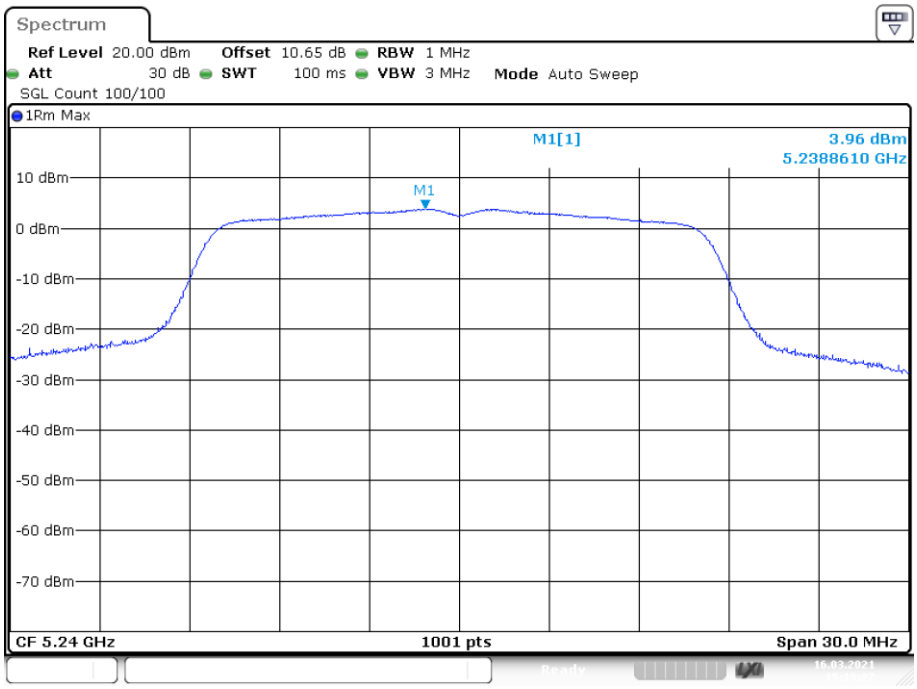
Date: 16.MAR.2021 15:13:19

PSD NVNT a 5200MHz Ant1



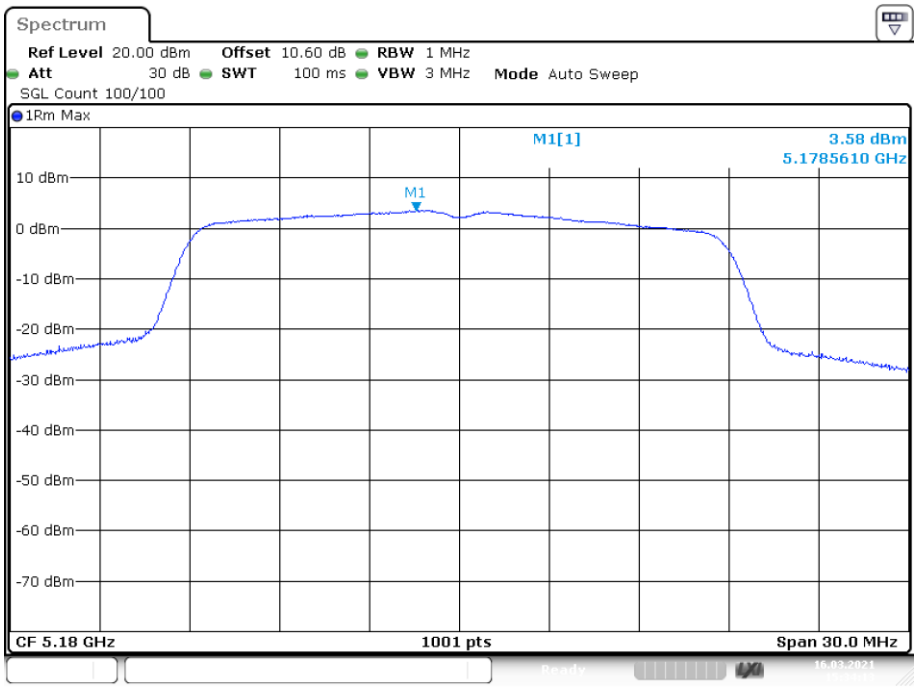
Date: 16.MAR.2021 15:16:46

PSD NVNT a 5240MHz Ant1



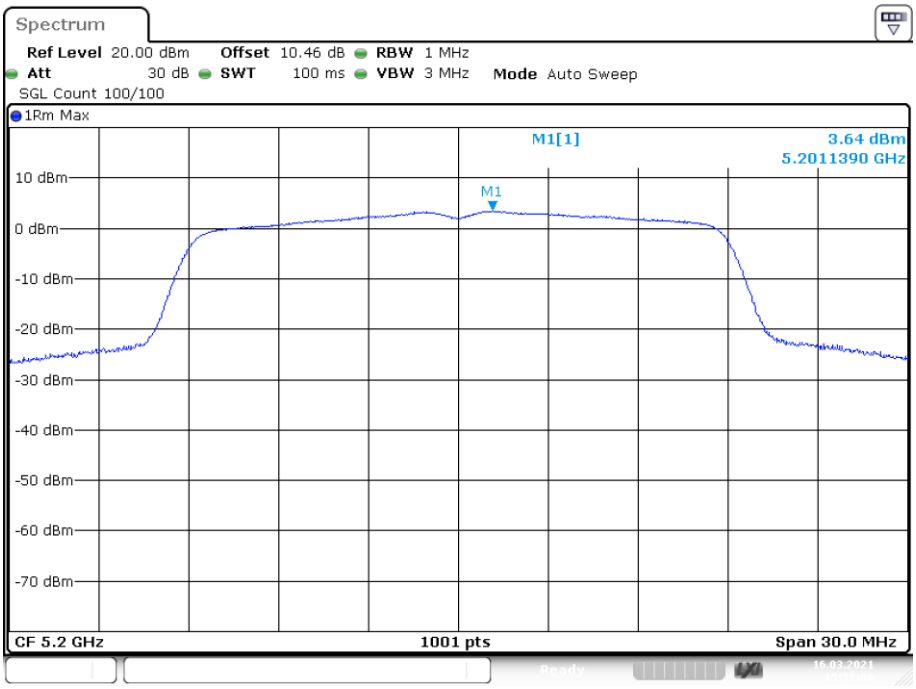
Date: 16.MAR.2021 15:19:28

PSD NVNT ac20 5180MHz Ant1



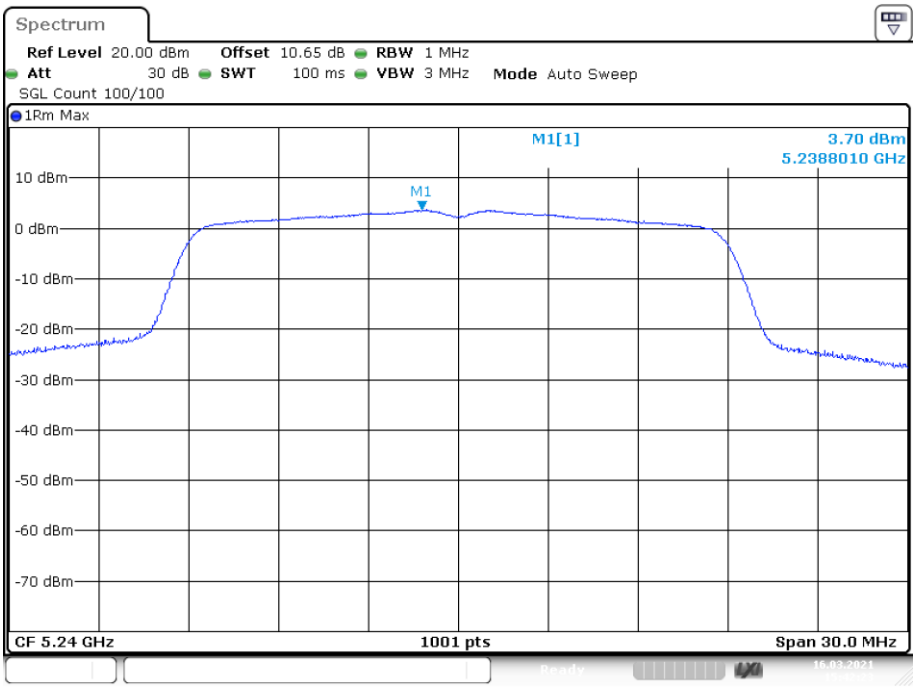
Date: 16.MAR.2021 15:34:12

PSD NVNT ac20 5200MHz Ant1



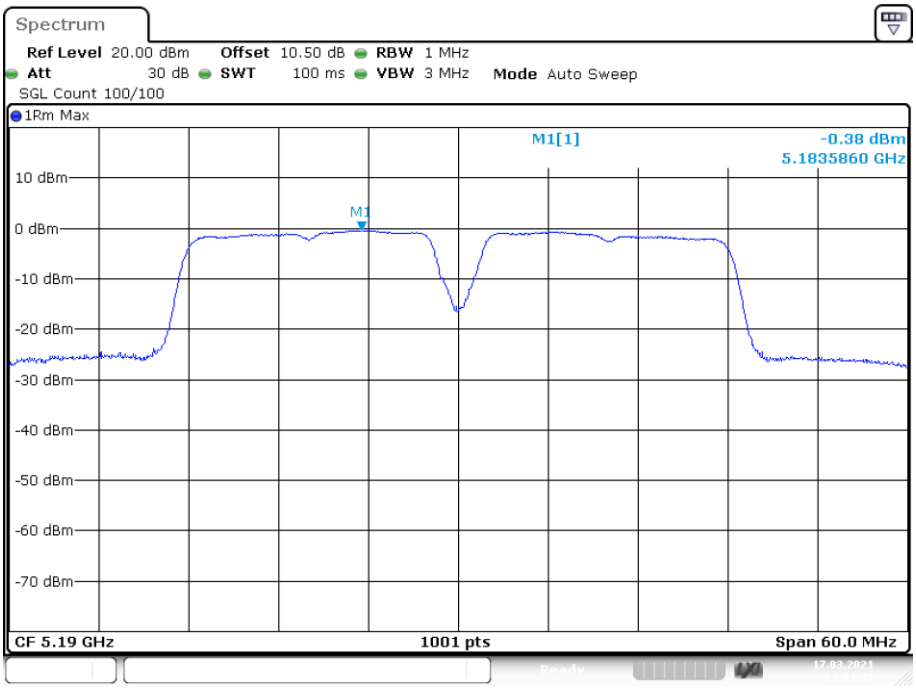
Date: 16.MAR.2021 15:39:05

PSD NVNT ac20 5240MHz Ant1



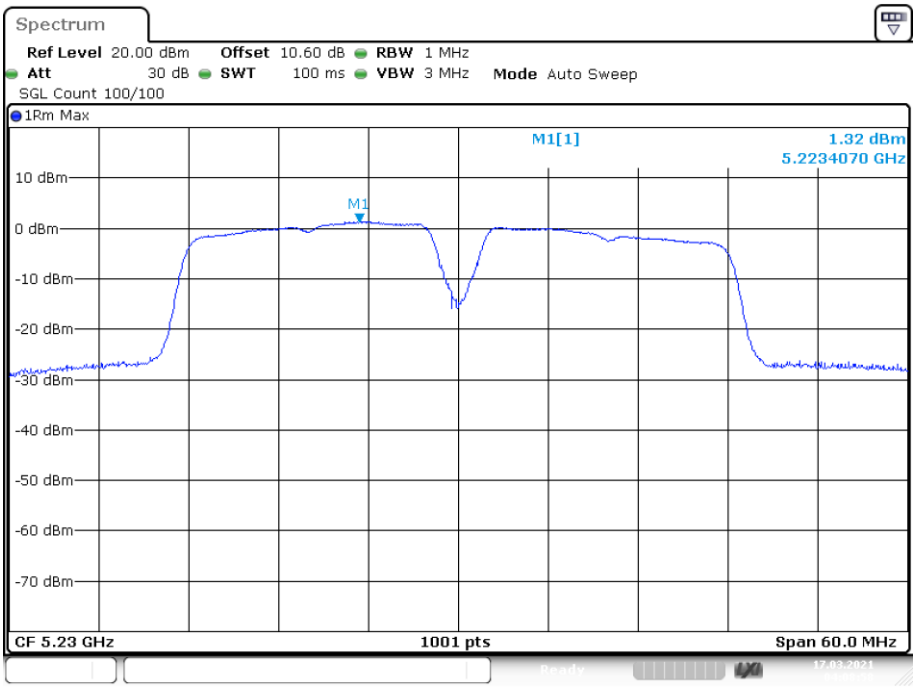
Date: 16.MAR.2021 15:42:23

PSD NVNT ac40 5190MHz Ant1



Date: 17.MAR.2021 04:04:42

PSD NVNT ac40 5230MHz Ant1



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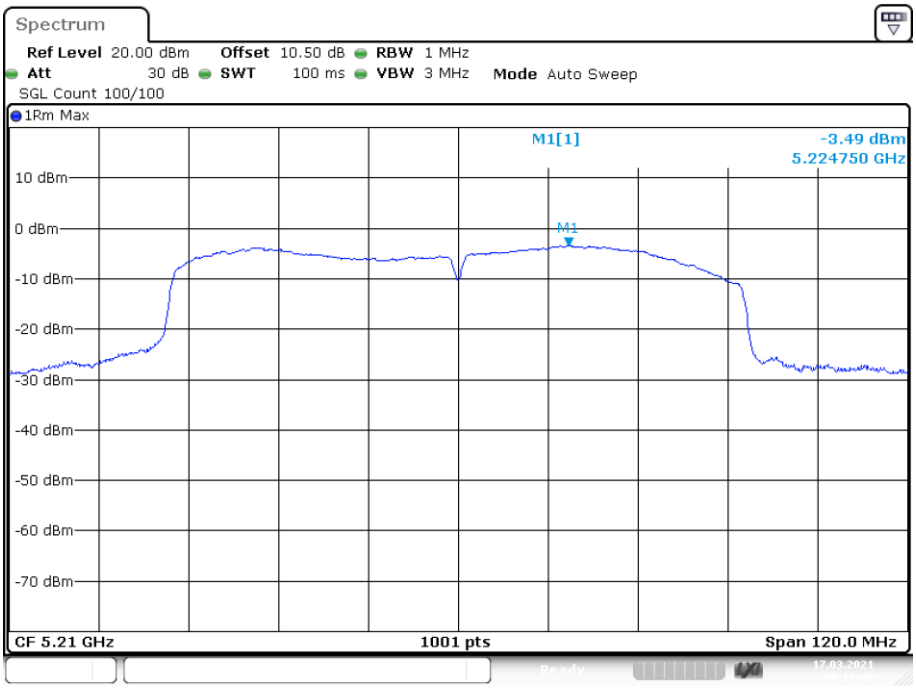
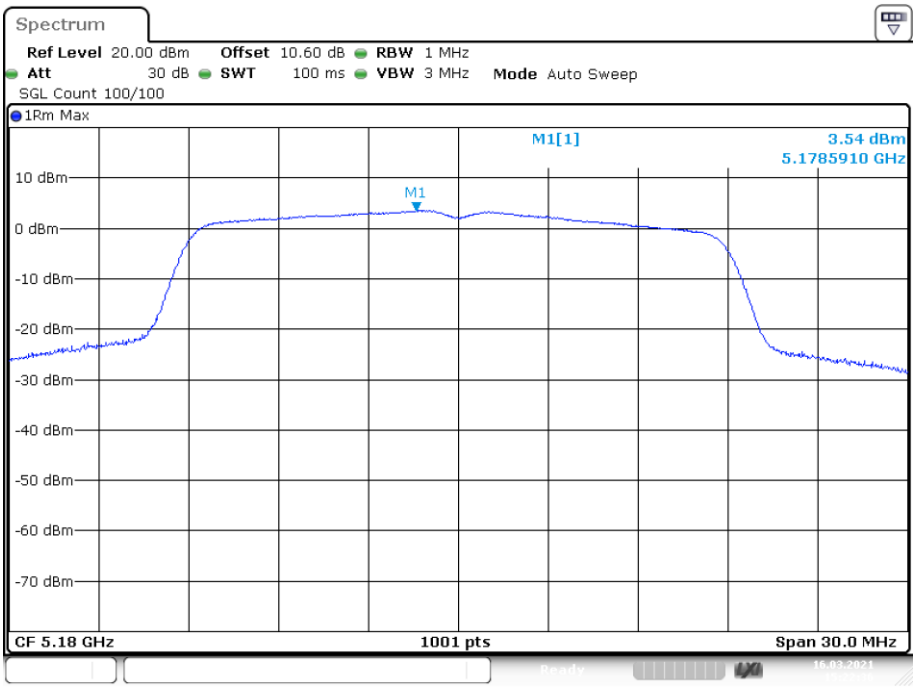
PSD NVNT ac80 5210MHz Ant1



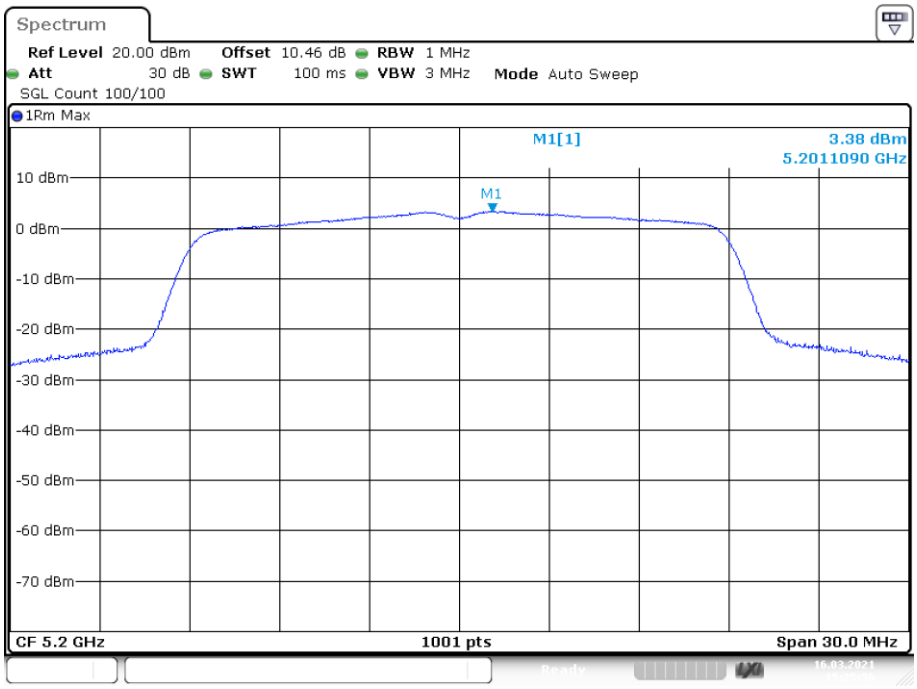
Date: 17.MAR.2021 05:13:48

PSD NVNT n20 5180MHz Ant1



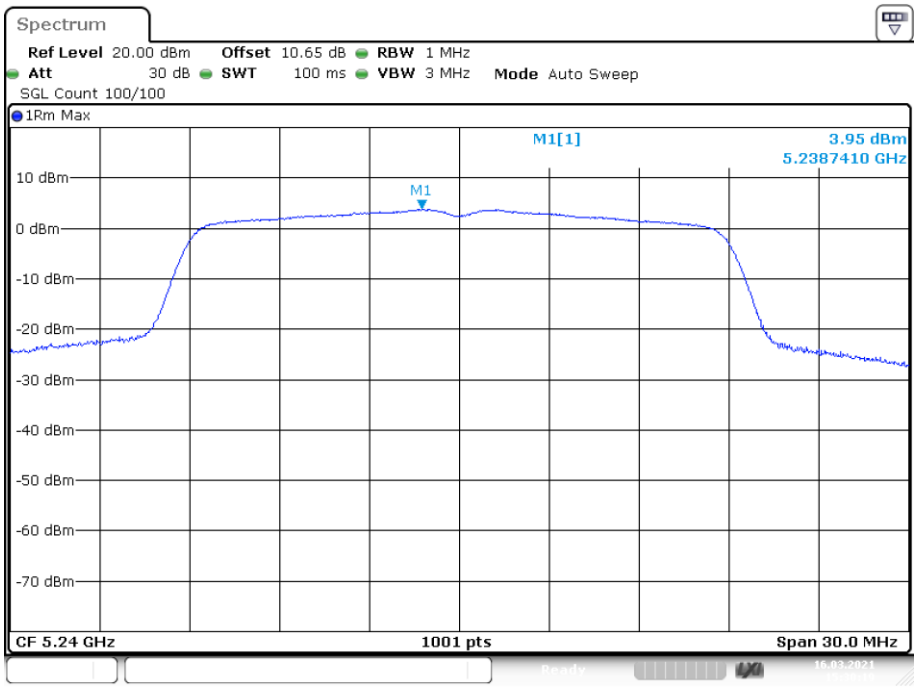
Date: 16.MAR.2021 15:22:35

PSD NVNT n20 5200MHz Ant1



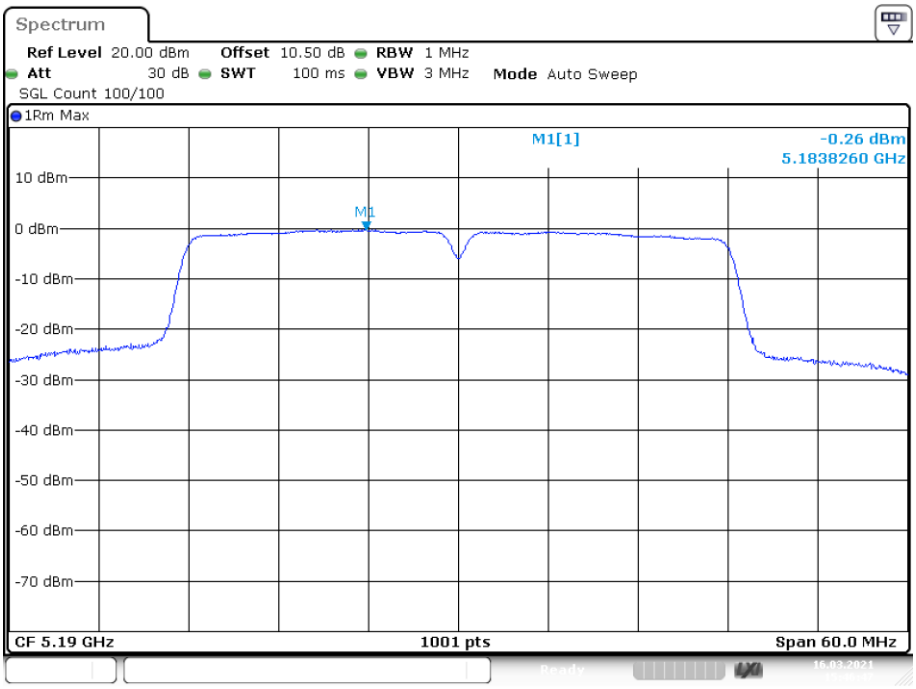
Date: 16.MAR.2021 15:25:56

PSD NVNT n20 5240MHz Ant1



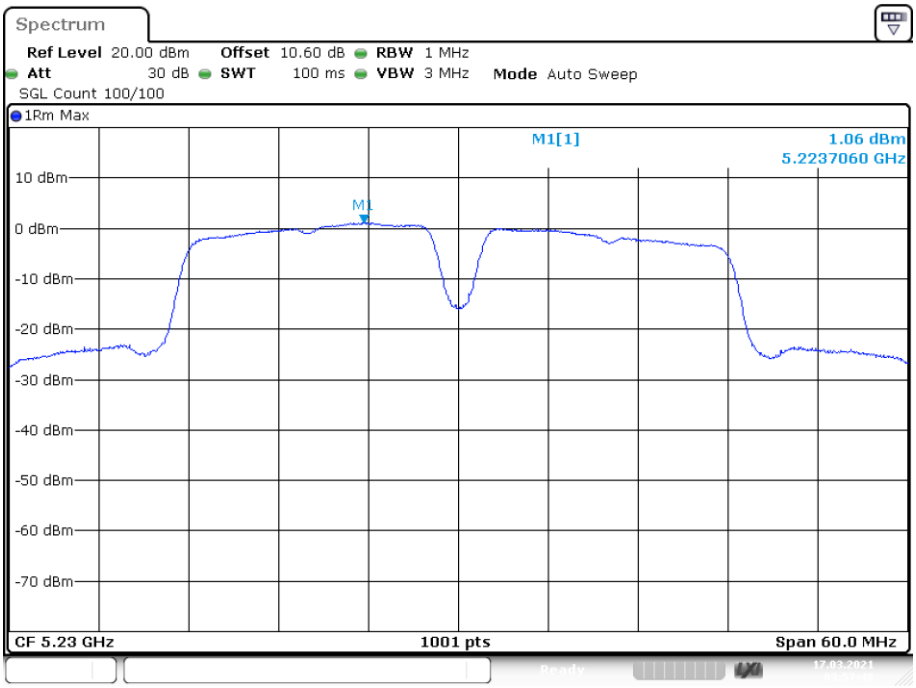
Date: 16.MAR.2021 15:30:18

PSD NVNT n40 5190MHz Ant1



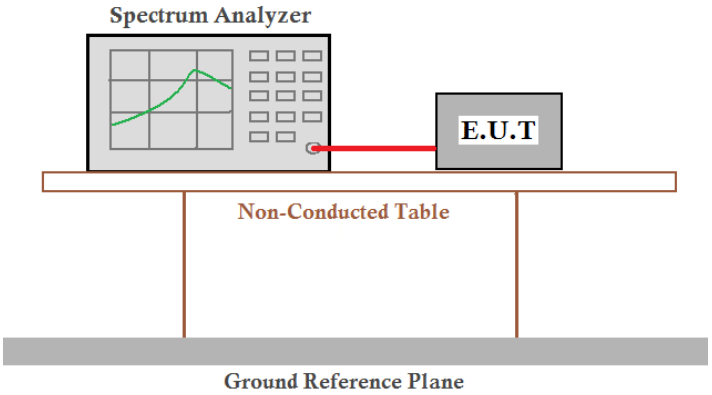
Date: 16.MAR.2021 15:46:47

PSD NVNT n40 5230MHz Ant1



Date: 17.MAR.2021 03:57:49

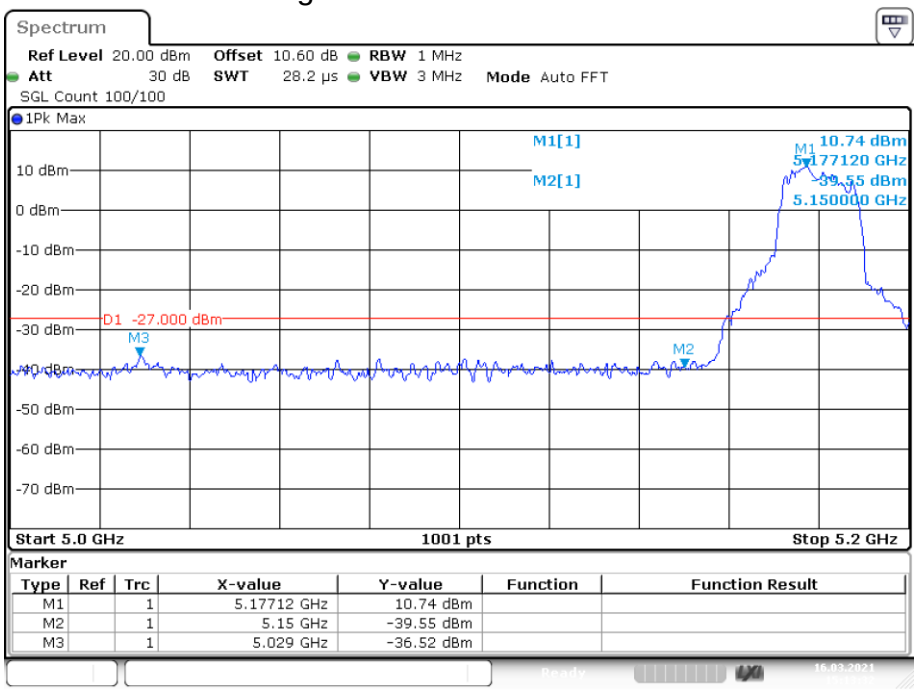
4.5 Band Edge

Test Requirement:	FCC Part15 E Section 15.407 and 15.205
Test Method:	ANSI C63.10:2013
Test setup:	
Limit:	Undesirable emission limits: (1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. (2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band. (3) For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of −27 dBm/MHz. (4) For transmitters operating in the 5.725-5.850 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
Test Procedure:	1. The power was monitored at the coupler port with a Spectrum Analyzer. The power level was set to the maximum level. 2. Set the RBW = 1MHz. 3. Set the VBW ≥ 3MHz 4. Number of points in sweep ≥ 2 × span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.) 5. Manually set sweep time ≥ 10 × (number of points in sweep) × (total on/off period of the transmitted signal). 6. Set detector = power averaging (rms). 7. Sweep time = auto couple. 8. Trace mode = max hold. 9. Allow trace to fully stabilize.
Test results:	Pass

Measurement Data:

U-NII-1						
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBm)	Limit (dBm)	Verdict
NVNT	802.11a	5180	Ant 1	-36.51	-27	Pass
NVNT	802.11a	5240	Ant 1	-37.79	-27	Pass
NVNT	802.11ac20	5180	Ant 1	-36.8	-27	Pass
NVNT	802.11ac20	5240	Ant 1	-37.29	-27	Pass
NVNT	802.11ac40	5190	Ant 1	-32.68	-27	Pass
NVNT	802.11ac40	5230	Ant 1	-36.15	-27	Pass
NVLT	802.11ac80	5210	Ant 1	-36.67	-27	Pass
NVNT	802.11n(HT20)	5180	Ant 1	-36.93	-27	Pass
NVNT	802.11n(HT20)	5240	Ant 1	-28.45	-27	Pass
NVNT	802.11n(HT40)	5190	Ant 1	-37.68	-27	Pass
NVNT	802.11n(HT40)	5230	Ant 1	-36.51	-27	Pass

Band Edge NVNT a 5180MHz Low Ant1

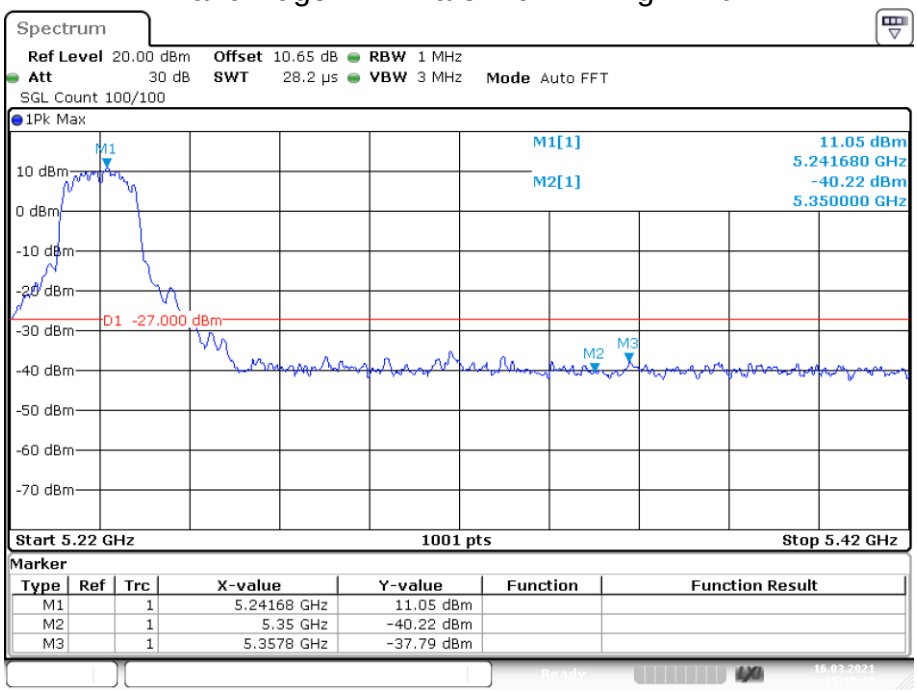


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.17712 GHz	10.74 dBm		
M2		1	5.15 GHz	-39.55 dBm		
M3		1	5.029 GHz	-36.52 dBm		

Date: 16.MAR.2021 15:13:32

Band Edge NVNT a 5240MHz High Ant1



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.24168 GHz	11.05 dBm		
M2		1	5.35 GHz	-40.22 dBm		
M3		1	5.3578 GHz	-37.79 dBm		

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